

Sec. 22a-430-4. Procedures and criteria for issuing water discharge permits

(a) Duty to apply

(1) Any person who or municipality which is required by section 22a-430 of the Connecticut General Statutes to obtain a permit to discharge to the waters of the state, including any person who or municipality which increases an existing discharge beyond permit conditions, shall do so in accordance with the provisions of this section and section 22a-430-3 of the Regulations of Connecticut State Agencies, as amended.

(2) Concentrated animal feeding operations, concentrated aquatic animal production facilities, aquaculture projects, and silvicultural activities, as defined in 40 CFR 122.23, 40 CFR 122.24, 40 CFR 122.25, 40 CFR 125 Subpart B, and 40 CFR 122.27 respectively and after any case-by-case review as specified therein, shall be subject to the requirements of this section and section 22a-430-3 of the Regulations of Connecticut State Agencies, as amended.

(3) When a facility or activity is owned by one person or municipality but is leased or in some other way the legal responsibility of another person or municipality (the operator) it is the operator's responsibility to submit any applications required under this section.

(b) Duty to reapply. Each permit shall be effective for a fixed term not to exceed five years. Any permittee who wishes to continue an activity authorized by a permit after the expiration date of the permit must apply for and obtain a renewed permit. Notwithstanding the provisions of section 22a-3a-1 of the Regulations of Connecticut State Agencies, an application for a permit renewal shall be submitted at least one hundred and eighty (180) days prior to the expiration date of the existing permit, in accordance with this section and section 22a-430-3 of the Regulations of Connecticut State Agencies.

(c) Application Requirements. Except for general permits, application for a new permit or renewal of a permit shall be made on forms provided or approved by the commissioner and shall include all applicable information referred to in this subsection. Application for a new or renewed general permit, as specified in subdivision (b) (6) of section 22a-430-3 of the Regulations of Connecticut State Agencies, shall be made on forms provided or approved by the commissioner and shall include only the information specified in subdivisions (1), (2), (3), (13) and (25) of this subsection. Where the name of a specific substance is required and the disclosure of that substance would reveal information relating to secret processes or methods of manufacture or production, the applicant may provide a description of the physical, chemical and toxicological properties of the substance in place of its name. This information shall include all information reasonably available that might bear on the commissioner's decision regarding the application or the terms and conditions of the permit. This exception shall not apply to substances listed in Appendix B or D of this section, nor shall it prohibit the commissioner from requiring additional information up to and including the name of the substance if he or she deems necessary. However, in determining whether the name of the substance is necessary, the commissioner shall consult with the applicant and consider the need for confidentiality. Any production or effluent data which is required to be submitted pursuant to this subsection shall, for existing discharges, be based on actual production or effluent quality, and, for new discharges, be based on reasonable projections. If an applicant or permittee becomes aware of a change in any information submitted as part of an application for a permit, or that any such information

was erroneous, or that any relevant facts were omitted from the application, he or she shall submit the correct information to the commissioner in writing within thirty days.

(1) The name (if a corporation transacting business in Connecticut, the full exact name as registered with the Secretary of the State), mailing and location addresses, and telephone numbers of the applicant, facility, facility owner and facility operator, and the operator's status as Federal, State, private, public or other entity.

(2) The date of the application and the date each discharge began or will begin.

(3) A brief general description of the nature of the business or activity and of each existing or proposed activity or process generating a discharge.

(4) For NPDES permits, for state permits for process wastewater discharges and for other state permits if required by the commissioner:

(A) The principal raw materials utilized, products produced or services provided. If a production-based effluent limitation has been adopted in subsection (1) of this section by reference to section 304 of the CWA, production figures shall be reported in the same units and for the same time period expressed in the limitation in subsection (1);

(B) Up to four SIC codes most applicable to the activities or services to be covered by the permit; and

(C) If any toxic or hazardous substance is anticipated to be used or present in a raw material or intermediate or final product or byproduct, a listing of each substance.

(5) A site plan and topographic map, drawn to scale with the scale shown, including a north meridian arrow. The site plan shall clearly show all buildings, actual and potential sources of discharge, and all intake and discharge locations including all wells where fluids from the facility are injected underground. The topographic map shall extend at least one mile beyond the property boundaries of the facility and clearly show the location of the facility in relation to all roads, surface waters, springs and wells. For NPDES permits, state permits for process wastewater discharges and for other state permits if requested by the commissioner, the applicant shall include on the site plan all fixed treatment, storage or disposal facilities for toxic or hazardous substances above or below ground and such other substances and types of facilities as the commissioner may direct. For NPDES permits for discharges from manufacturing, commercial, mining and silvicultural activities, the latitude and longitude of each discharge to the nearest fifteen seconds shall be reported. All roads and surface waters shall be named.

(6) The average and maximum amount of wastewater to be discharged per day or event. If different types of processes contribute to one discharge, each individual process type shall be so described. An identification of all types of wastes generated by each type of process shall be included. For privately owned treatment works, this information shall include the name and location address of all users of the system

(7) Average and maximum hours per day over which each discharge will occur.

(8) If any discharges are batch type, intermittent or seasonal, they shall be so described, including the frequency and duration of each.

(9) For process wastewater discharges and for other discharges if required by the commissioner, a list of names and maximum quantities of all substances which are stored on-site as designated on the site plan required under subdivision (c) (5) above. For all substances stored in containers of five gallons or less, this list may be limited to a generic

description of the categories of substances stored and an estimate of the maximum total quantity of each category stored. The categories to be listed shall include acids, bases, cyanides, organic chemicals and heavy metals.

(10) For process wastewater discharges and for other discharges if required by the commissioner, a plan describing all provisions to prevent and control spills, leaks and other unplanned releases of all substances included in the inventory submitted under subdivision (c) (9) above, including but not limited to:

(A) An evaluation of each facility or system used for the storage, collection, transfer, treatment, loading or unloading of any such substances for its potential to generate a spill, leak or other unplanned release, and the maximum potential magnitude of such spill, leak or release.

(B) Provisions adequate to meet the requirements of subsection (p) of section 22a-430-3 of the Regulations of Connecticut State Agencies.

The commissioner may exempt certain facilities included in the inventory submitted under subdivision (c) (9) above from the requirements of this subparagraph if in his or her judgement such facilities are unlikely to cause pollution.

(11) For process wastewater discharges and for other discharges if required by the commissioner, a complete description of the types of resource conservation practices and provisions for complying with the requirements of subsection (o) of section 22a-430-3 of the Regulations of Connecticut State Agencies.

(12) A description of the type, quantity and method of disposal of all process wastewaters which are not included in the discharges which are the subject of the application, including but not limited to screenings, sludges, oils, solvents and other chemicals. The commissioner may require the submission of a signed contract which provides for proper disposal of such wastes.

(13) An indication of whether the facility is or will be located either within the coastal boundary as defined by section 22a-94 of the General Statutes as amended (as delineated on maps contained in the appropriate town clerk's office) or on Indian lands. The commissioner may require the applicant to submit additional information to support a determination that the proposed activity is consistent with the provisions of sections 22a-94 through 22a-112 of the General Statutes, as amended.

(14) The names of the categories of discharge for which effluent limitations have been adopted in subsection (1) of this section, citing evidence and reasons why such categories are applicable.

(15) For any discharge from a manufacturing, commercial, mining, or silvicultural facility, a line drawing of the water flow through the facility with a water balance, showing all separate production operations contributing wastewater to the effluent and treatment units. The water balance must show approximate average and maximum flows at intake and discharge points and between units, including treatment units.

(16) A complete description of all collection and treatment facilities proposed or provided, including drawings to scale, describing in detail the existing or proposed means of complying with the applicable effluent limitations and conditions in subsection (1) of this section and section 22a-430-3 of the Regulations of Connecticut State Agencies. The commissioner may require that such drawings be prepared by an engineer licensed to

practice in the State of Connecticut. Plans and specifications previously submitted and approved by the commissioner may be incorporated by reference, and shall be deemed to be a part of the current application.

(17) A general description of the methods and provisions for operation and maintenance of the collection and treatment facilities, including an operation and maintenance manual if required pursuant to subsection (f) of section 22a-430-3 of the Regulations of Connecticut State Agencies and documentation of any operator certification required under sections 22a-416-1 through 22a-416-10 of the Regulations of Connecticut State Agencies as amended. Manuals previously submitted may be incorporated by reference and shall be deemed to be part of the current application.

(18) For NPDES permits, a listing of all permits or construction approvals received or applied for under each of the following programs:

(A) Hazardous Waste Management program under RCRA or the Connecticut Hazardous Waste Management laws.

(B) UIC program.

(C) NPDES program.

(D) Prevention of Significant Deterioration (PSD) program under the Clean Air Act.

(E) Nonattainment Program under the Clean Air Act.

(F) National Emission Standards for Hazardous Pollutants (NESHAPS) preconstruction approval under the Clean Air Act.

(G) Ocean dumping permits under the Marine Protection Research and Sanctuaries Act.

(H) Dredge or fill permits under section 404 of CWA.

(I) State discharge permits issued under section 22a-430 of the Connecticut General Statutes.

(J) Other relevant environmental permits, including State permits.

(19) For NPDES permits, if the applicant is subject to any requirements or compliance schedules for construction, upgrading or operation of wastewater treatment facilities, an identification of the requirement, description of the project, and a listing of the required and projected final compliance dates.

(20) The following specific information shall be submitted for each discharge in each applicable discharge category listed below. When quantitative data is required by this subdivision, the applicant must collect a representative daily composite sample of the effluent and analyze it for the required parameters, and, for existing permitted discharges, except where grab samples are required, shall also report the average monthly and maximum daily concentrations for all parameters subject to a monitoring requirement in the applicant's existing permit for each of the most recent twelve months prior to the date of the application. When the applicant has two or more discharges in the same discharge category and all such discharges are of substantially identical effluent quality, the commissioner may allow the applicant to submit some or all of the information for only one discharge, and report that such information also applies to the other similar discharges. An applicant is expected to know or have reason to believe or reasonably ascertain that a substance is present in a discharge based on an evaluation of the expected use, production, or storage of the substance, an investigation of the contents of raw materials, and on any previous analyses for the substance. A requirement that an applicant provide information for any such

substances does not apply to substances present solely as a result of their presence in the intake water, however, an applicant must report such substances as present. Where chemical analyses are required, daily composite samples shall be used, except that grab sample averages shall be used for temperature, cyanides, total phenols, oil and grease and fecal coliform bacteria, and for pH and total residual chlorine, the range during the composite sample shall be reported. All samples shall be collected, handled and analyzed in accordance with methods listed or approved under 40 CFR Part 136. The commissioner may require the applicant to submit any or all data on which the following information is based.

(A) For permits for discharges of process wastewater, NPDES permits for discharges of sewage from a POTW or for domestic sewage from any other facility:

(i) For existing discharges and for new discharges if required by the commissioner, every applicant must report quantitative data for every discharge for the following parameters except that pH and temperature shall be reported as noted. The commissioner may waive the reporting requirements for one or more of the parameters listed in this subparagraph if the applicant has demonstrated that such a waiver is appropriate because information adequate to support issuance of the permit is otherwise available.

Biochemical Oxygen Demand (BOD)⁵

Chemical Oxygen Demand,

Total Organic Carbon,

Oil and Grease,

Total Suspended Solids,

Ammonia (as Nitrogen),

Phosphorus (Total),

Maximum temperature (both winter and summer), and pH (minimum and maximum).

(ii) For existing discharges, and for new discharges if required by the commissioner, each applicant with processes in one or more primary industry categories listed in Appendix A contributing to a discharge shall report quantitative data for the following substances in each discharge containing process wastewater (except the cyanides and total phenol, for which the maximum concentration shall be reported):

(a) The substances in the fractions designated in Table I of Appendix B for the applicant's discharge category or categories. Table II of Appendix B lists the substances in each fraction. The commissioner's determination that an applicant falls within a particular discharge category for the purposes of selecting fractions for testing is not conclusive as to the applicant's inclusion in that category for any other purposes.

(b) The substances listed in Table III of Appendix B.

(iii) For existing discharges and for new discharges if required by the commissioner, each applicant shall report for each discharge quantitative data for each of the following substances, if the applicant knows or has reason to believe or can reasonably ascertain that the substance is discharged or if an applicable limitation in subsection (1) directly or, through an indicator parameter, indirectly, limits the substance (except for oil and grease and fecal coliform bacteria, for which maximum concentration shall be reported):

(a) All substances listed in Table II or Table III of Appendix B for which such information is not otherwise required under subparagraph (20) (A) of this subsection.

(b) All substances in Tables IV and V of Appendix B.

(iv) For existing discharges of process wastewater, for new discharges if required by the commissioner and, for NPDES discharges from existing manufacturing, commercial, mining and silvicultural facilities, each applicant shall report quantitative data for 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) using a screening procedure not calibrated with analytical standards if the applicant:

(a) Uses or manufactures 2,4,5-trichlorophenoxy acetic acid (2,4,5,-T); 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5,-TP); 2-(2,4,5-trichlorophenoxy) ethyl, 2,2-dichloropropionate (Erbon); 0,0-dimethyl-0 (2,4,5-trichlorophenyl); phosphorothioate (Ronnel); 2,4,5-trichlorophenol (TCP); or hexachlorophene (HCP); or

(b) Knows or has reason to believe or can reasonably ascertain that TCDD is or may be present in the discharge.

(v) Each applicant shall identify and provide a summary of the results of any biological toxicity tests which the applicant knows or has reason to believe have been made within the last three years on any of the applicant's discharges at the site in question or on any receiving water in relation to any such discharges.

(B) For NPDES permits for concentrated animal feeding operations and concentrated aquatic animal production facilities:

(i) For concentrated animal feeding operations:

(a) The type and number of animals in open confinement and housed under roof.

(b) The number of acres used for confinement feeding.

(c) The design basis for the runoff diversion and control system, if one exists, including the number of acres of contributing drainage, the storage capacity, and the design safety factor.

(ii) For concentrated aquatic animal production facilities:

(a) The maximum daily and average monthly flow from each discharge location.

(b) The number of ponds, raceways, and similar structures.

(c) For each species of aquatic animals, the total yearly and maximum harvestable weight.

(d) The calendar month of maximum feeding and the total mass of food fed during that month.

(C) For state permits for discharges of domestic sewage through land treatment non-point source discharge systems, including but not limited to septic tank leachfield subsurface sewage disposal systems:

(i) An engineering report including but not limited to the following information:

(a) Data of soils tests including but not limited to deep test pits, soil borings and permeability tests in sufficient numbers to define the hydrogeologic regime on the site. Such information shall include the dates of all testing.

(b) A description of any proposed treatment system to be utilized prior to land application of wastewater, including the estimated effluent quality.

(c) Calculations according to best engineering practices determining the application area, the hydrogeologic capability of the site to accept the volume of waste or wastewater and the ability of the site to renovate the waste or wastewater.

(d) A description of a proposed program to monitor the disposal system, the discharge or the effects of the discharge on the waters of the state.

(e) A description of any proposed fiscal or institutional controls intended to ensure the

proper operation and maintenance of the system.

(ii) A preliminary plan drawn to a scale of one inch equal to fifty feet or less including but not limited to the following information:

- (a) Property boundaries,
- (b) Surface contours at two foot intervals in the proposed treatment area, including existing and proposed contours,
- (c) The location of all soil tests on the property,
- (d) Building locations and dimensions,
- (e) Location of all watercourses and subsurface pipes,
- (f) Location of all existing or proposed wells,
- (g) A schematic diagram of the system proposed to treat the discharge including component elevations, and
- (h) The location of all areas which have been designated as inland wetlands under section 22a-38 of the General Statutes, as amended.

(D) For discharges from agricultural activities, a farm waste management plan including but not limited to:

- (i) A description of the nature of the agricultural activity.
- (ii) Design drawings of facility components, prepared by the Soil Conservation Service or a professional engineer licensed to practice in the State of Connecticut.
- (iii) If the wastewater is disposed of through land application, loading rates and number of acres available for crop growing purposes.

(E) For state permits for discharges of leachate from a solid waste disposal area to the surface waters, ground waters or to a sanitary sewerage facility, the following information:

(i) A detailed area map at a scale of approximately one inch equal to five hundred feet which shows topography and all pertinent features within a minimum one half mile radius of the boundaries of the disposal area, including but not limited to:

- (a) structures,
- (b) roads,
- (c) drainage features including streams, ponds and designated inland or tidal wetlands,
- (d) one hundred year flood boundary,
- (e) rights-of-way including gas, electric, sewer and water,
- (f) surficial and bedrock geology, as mapped,
- (g) designated, in-use, or potential aquifers,
- (h) areas within the coastal boundary as defined by section 22a-94 of the General Statutes, as amended,
- (i) public water supply wells,
- (j) any domestic water supply wells within one thousand feet of the site or within the existing and predicted leachate plume, and
- (k) areas served by public water supply.

(ii) A detailed site map at a scale no greater than one inch equal to one hundred feet with the contour interval of two feet or five feet which shows the entire disposal area and the area of the existing and predicted leachate plume to the point of discharge to a surface water. The site map shall show:

- (a) contours after site preparation,

- (b) proposed final contours,
 - (c) existing and potential water table contours,
 - (d) section lines,
 - (e) all test pits, borings and monitor wells,
 - (f) all surface and ground water monitoring points and existing and proposed locations of fill limit markers,
 - (g) on-site buildings, fences, gates and roads,
 - (h) existing and proposed sedimentation and erosion controls, and
 - (i) area of the existing and predicted leachate plume.
- (iii) A minimum of two cross sections through the site, one perpendicular and one parallel to the ground water flow, depicting existing, site preparation and final grades, water table, depth of existing and predicted leachate plume, bedrock surface and structure, and details (layering) of the unconsolidated deposits.
- (iv) A report describing water quality impacts which includes:
- (a) An explanation of the ground water contour map showing flow directions and area of the existing and potential maximum extent of leachate discharges to ground water (plume map). Water levels should be based on a minimum of two rounds of water level readings from all available wells, test pits, springs and borings; readings to be taken during spring high water levels, if possible.
 - (b) A description of the interaction between the surficial and bedrock geology, the ground water flow, surface waters and the leachate discharge, including all boring logs and monitor well construction details. Monitor wells shall be installed using methods and materials satisfactory to the commissioner.
- (C) An estimate of the quantity of the proposed discharge volume on a monthly and annual basis using a water budget based on site area and infiltration rates.
- (d) A characterization of the worst-case leachate quality based on waste type to be disposed of, by on-site testing, testing of similar landfills, or published literature.
- (e) Using leachate indicators as defined in section 22a-430-3 of the Regulations of Connecticut State Agencies as amended, and any other substances as required by the commissioner, a prediction of the worst case leachate impact on the ground waters at the site boundary and surface waters at the downgradient end of the leachate plume. Surface water impacts shall be calculated using seven day, ten year low flows as obtained from stage measurements or calculated from the United States Geological Survey Connecticut Basin Reports. Water quality impacts from leachate shall be added to the existing background ground and surface water quality for each parameter.
- (f) For existing discharges, the results of all background water quality data which has been collected. A minimum of two rounds of samples, one month apart, shall be collected from all monitor wells, and from up and downstream surface water locations. Representative nearby water supply wells shall be tested as required by the commissioner. Parameters tested shall include leachate indicators as defined in section 22a-430-3 of the Regulations of Connecticut State Agencies as amended and all parameters for which potable drinking water standards have been adopted by the Connecticut Commissioner of Health Services.
- (g) A detailed discussion of the impact of the existing or proposed leachate discharge on ground waters, adjacent surface water, existing or potential water supply wells, and the

conformance of the discharge with existing and proposed Connecticut Water Quality Standards.

(v) A description of the solid waste disposal area site operation and management as it relates to the existing or proposed leachate discharge, specifically addressing the following:

(a) Landfill area, volume, and estimated site life.

(b) Type of wastes to be accepted.

(c) An operational sequence that will minimize infiltration and maximize runoff of precipitation.

(d) A quarterly ground and surface water quality monitoring program.

(e) Closure with vegetation, soils, and slopes that will minimize infiltration.

(f) Post closure site maintenance and monitoring.

(vi) Any person or municipality may apply to the Commissioner for an amendment of a groundwater classification. A proceeding to amend a groundwater quality classification shall be conducted pursuant to Section 22a-426 of the General Statutes and Section 22a-3a-1 of the Regulations of Connecticut State Agencies. The Commissioner shall not reclassify groundwater quality as GC unless the applicant demonstrates that:

(a) The hydrogeology of the affected area precludes the development of high quality and high yield water supply;

(b) The hydrogeology of the affected area is suitable for the treatment of waste and;

(c) The criteria for issuance of a leachate discharge permit pursuant to Section 22a-430-4 of the Regulations of Connecticut State Agencies are met.

(vii) The Commissioner shall not issue a permit for the discharge of leachate from a solid waste disposal area unless:

(a) Assuming for purposes of analysis the absence of any means at such solid waste disposal area to collect or treat leachate, the discharge of such leachate would not pollute any receiving surface water classified as B or SB by the Water Quality Standards or interfere with the attainment of any water quality classification goal that has been adopted for such surface water in the Water Quality Standards;

(b) The permit applicant has the right of possession, by means of fee interest, easement, or otherwise, to the zone of influence of such solid waste disposal area and;

(c) No potable water supply well is located within the zone of influence of such solid waste disposal area and no potable water supply well is located such that recharge of such well from such zone of influence could be induced by pumpage, unless the permit applicant will, with the approval of the Commissioner and the agreement of the user of any such well, provide an alternate supply of potable water to such user.

In reviewing any application for a permit to discharge leachate from a solid waste disposal area, the Commissioner shall deem the capability of the pertinent geologic formation to treat the discharge to be the primary means of protecting the waters of the State from solid waste leachate.

(F) For discharges of non-contact cooling water and heat pump wastewaters which are not included in the definition of “minor non-contact cooling water” and “minor heat pump wastewaters” in subsection (a) of section 22a-430-3 of the Regulations of Connecticut State Agencies, and for blowdown from heating and cooling equipment, the following information:

- (i) Maximum winter and summer temperatures.
- (ii) Minimum and maximum pH.
- (iii) Maximum daily concentration of Total Suspended Solids
- (iv) A list of all water treatment chemicals added, including the average monthly and maximum daily concentrations of each.

(G) For permits for discharges of domestic sewage from a community sewerage system not owned by a municipality, a signed letter from the Water Pollution Control Authority of the municipality in which the system exists, indicating that such authority is satisfied that the proposed method of management of the system complies with the provisions of section 7-246f of the Connecticut General Statutes, as amended.

(21)

(A) Applicants for the following discharges shall submit a discharge toxicity evaluation:

(i) Existing NPDES discharges of process wastewater if the applicant or the commissioner knows or has reason to believe or can reasonably ascertain that:

(a) The discharge may contain one or more of the substances listed in Appendix B or D of this section or

(b) If the discharge can reasonably be expected to exhibit acute or chronic toxicity based on the results of acute or chronic toxicity tests or toxicity tests of similar discharges within the applicant's wastewater category as referred to in the Monitoring Schedule appended to Section 22a-430-3 of the Regulations of Connecticut State Agencies;

(ii) If required by the commissioner, new NPDES discharges of process wastewater, other NPDES discharges, and discharges of sewage from a POTW.

(B) Said evaluation shall describe water quality impacts of the discharge on the receiving water and include:

(i) Quantitative data describing the toxicity of the discharge including the results of acute or chronic toxicity tests, utilizing at least one fish species and one species of aquatic invertebrate organism as test species, on a minimum of three representative samples of the discharge. The commissioner may require additional testing or modification to the testing protocol or test species, where he or she has reason to believe that the results of tests by the applicant are or may be inconclusive due to the sampling and testing procedures employed or where the commissioner has reason to believe that acute or chronic toxicity data for an alternative species is needed to assess the impact of the effluent on the receiving waters;

(ii) Results of chemical analysis data for all samples collected for the purpose of toxicity testing under this subparagraph shall be provided for all substances for which monitoring has been required under the expired or expiring permit for the same discharge or for which effluent limitations or conditions have been established pursuant to subsection (1) of this section;

(iii) A detailed site plan at a scale no greater than one inch equal to one hundred feet with discharge dilution concentration contours labelled at intervals of no greater than ten percent of the receiving waters in the vicinity of the discharge under 7Q10 conditions. The location of all watercourses, discharges, wells, surface water intakes, designated inland or tidal wetlands, known or suspected shellfish beds, structural features such as bridges, culverts, dams, impoundments, and property boundaries shall be clearly marked;

(iv) Any other information the commissioner deems necessary;

(v) A detailed discussion evaluating the potential impact of the existing or proposed discharge on the receiving waters, based on the information required by paragraphs A (i), A (ii), A (iii), and A (iv) above, including, but not limited to an evaluation of the conformance of the discharge with both the Connecticut Water Quality Standards and any limitations established pursuant to subsection (1) of Section 22a-430-4 of the Regulations of Connecticut State Agencies.

(C) The commissioner may exempt applicants for NPDES permits from all or part of the testing, evaluation, and monitoring requirements specified in subparagraph (B) of this subdivision if a discharge toxicity evaluation has already been submitted and approved by the commissioner for the discharges in question in accordance with subsection (j) (ten) of Section 22a-430-3 of the Regulations of Connecticut State Agencies, or if the applicant submits a written request including but not limited to:

(i) An estimate of the acute and chronic toxicity of the discharge based on a comparison of the concentration of substances responsible for such toxicity present in the discharge with one or more of the following:

(a) Water quality criteria for acute and chronic toxicity published pursuant to Section 304 (a) of the Clean Water Act. If more than one such substance is present in the discharge, the toxicity of the mixture shall be assumed to equal the sum of the toxicities of such individual substances which make up the mixture;

(b) The results of biological toxicity tests on individual substances present in the discharge or mixtures of substances similar to those present in the discharge. If more than one substance responsible for toxicity is present in the discharge, the toxicity of the mixture shall be assumed to equal the sum of the toxicities of such individual substances which make up the mixture. Where estimates of chronic toxicity are made based on the results of acute toxicity measures, chronic toxicity shall be assumed to occur at a concentration equal to one-twentieth (0.05) of the LC50 value determined in an acute toxicity test. The concentration of a substance or mixture of substances which will have no acute toxic effect on aquatic organisms of similar sensitivity to those organisms used in a toxicity test shall be assumed to be equal to one-third (0.33) of the measured LC50 value determined in an acute toxicity test;

(ii) The concentration of discharge anticipated to occur in the receiving waters following dilution and mixing of the discharge with the receiving waters during 7Q10 conditions pursuant to subdivision (1) (5) of this section;

(iii) A detailed discussion evaluating the potential impact of the existing or proposed discharge on the receiving waters, based on the information required by subparagraphs C (i) and C (ii) above, including but not limited to an evaluation of the conformance of the discharge with both the Connecticut Water Quality Standards and any limitations established pursuant to subsection (1) of this section;

(iv) Any other information the commissioner deems relevant.

(22) The commissioner may require applicants for state permits for discharges of process wastewater to a POTW to submit the information required under subparagraph (A) or (B), and subparagraphs (C), (D) and (E) inclusive of this subdivision:

(A) An estimate of the acute and chronic toxicity of the discharge based on a comparison of the concentration of substances responsible for toxicity present in the discharge with one

or more of the following:

(i) Water quality criteria for acute and chronic toxicity published pursuant to Section 304 (a) of the Clean Water Act. If more than one substance responsible for toxicity is present in the effluent, the toxicity of the mixture shall be assumed to equal the sum of the toxicities of such individual substances which make up the mixture.

(ii) The results of toxicity tests on individual substances responsible for toxicity present in the discharge or mixtures of substances similar to those present in the discharge. If more than one such substance is present in the discharge, the toxicity of the mixture shall be assumed to equal the sum of the toxicities of the individual substances which make up the mixture. Where estimates of chronic toxicity are made based on the results of acute toxicity measures, chronic toxicity shall be assumed to occur at a concentration equal to one-twentieth (0.05) of the LC50 value determined in an acute toxicity test. The concentration of a substance or mixture of substances which will have no acute toxic effect on aquatic organisms of similar sensitivity to those organisms used in a toxicity test shall be assumed to be equal to one-third (0.33) of the measured LC50 value determined in an acute toxicity test.

(B) If the commissioner determines that the information submitted under subparagraph (A) is or will be inconclusive, he or she may require the applicant to provide some or all of the following information:

(i) Quantitative data describing the toxicity of the discharge including the results of acute or chronic toxicity tests of the discharge individually, in combination with the discharge from the POTW or after treatment designed to represent that provided by the POTW. A minimum of three representative samples of discharge shall be tested utilizing at least one fish species and one species of aquatic invertebrate.

(ii) Results of chemical analysis of all samples collected for the purpose of acute or chronic toxicity testing under (B) (i) above. Results shall be provided for all substances for which monitoring has been required under the expired or expiring permit for the same discharge or for which effluent limitations have been established pursuant to subsection (1) of this section.

(C) The concentration of discharge anticipated to occur in the receiving waters following dilution and mixing of the discharge with the receiving waters during 7Q10 low flow conditions. The mean average daily flow from the POTW for the year preceding the date of permit application for the discharge shall be combined with the 7Q10 low flow in the receiving stream when determining the in-stream discharge concentration.

(D) The percentage of the total flow from the POTW represented by the discharge of the process wastewater discharge to the POTW under the following conditions:

(i) Mean average daily flow from the POTW for the year preceding the date of permit application for the permit to discharge to the POTW; and

(ii) The design flow rate of the POTW.

(E) A detailed discussion evaluating the potential impact of the existing or proposed discharge on the receiving waters, based on the information required by this subsection. This discussion shall include, but not be limited to an evaluation of the conformance of the discharge with both the Connecticut Water Quality Standards and any limitations established pursuant to subsection (1) of this section.

(23) If a contract laboratory or consulting firm performed any of the analyses required by this subsection, the identity of each laboratory or firm and the analyses performed.

(24) In addition to the above information, the commissioner may require an applicant or permittee to submit such other information as he or she deems reasonably necessary, including but not limited to additional effluent quality data, results of biological studies, necessary legal instruments and such other reports, plans and studies as may be required to show the effects of the discharge on the waters of the state and/or any receiving POTWs or the operation thereof.

(25) For general permits, as specified in subdivision (b) (6) of section 22a-430-3 of the Regulations of Connecticut State Agencies:

(A) For discharges to surface waters:

(i) The names, if any, of all receiving waters;

(ii) For stormwater discharges, a map delineating the geographic area to be covered by the general permit;

(iii) For potable water system flushing wastewaters, the number of discharge points and a map delineating the geographic area to be covered by the general permit;

(iv) For minor non-contact cooling water, minor heat pump wastewaters and minor blowdown from heating and cooling equipment, the maximum winter and summer temperatures, maximum instantaneous flow rate, a list of all chemical additives and their maximum anticipated concentrations and a map showing the discharge locations;

(v) For hydrostatic pressure testing wastewaters and dewatering wastewaters, a list of all chemical additives and their concentrations, the number of discharge points and a map showing the discharge locations.

(vi) For groundwater contamination recovery systems for fuel oil and gasoline, a site plan drawn to a scale of no greater than one inch equals one hundred feet showing all recovery or interceptor wells, the estimated volume of product lost, and the names and addresses of the person contracted to clean up the contamination and the consultant hired to design the proposed remedial action program.

(B) For discharges to POTWs, all applicants shall submit the following information in addition to the information required for the specific discharge categories below: the frequency and average daily flow of each discharge and plans and specifications of any proposed treatment facilities:

(i) For photographic processing, the name and address of the person contracted for recovery of silver;

(ii) For groundwater contamination recovery systems for fuel oil and gasoline, a site plan drawn to a scale of no greater than one inch equals one hundred feet showing the location of all recovery or interceptor wells, the estimated volume of product lost, and names and addresses of the person contracted to clean up the contamination and the consultant hired to design the proposed remedial action program;

(iii) For vehicle service floor drain discharges, the name and address of the person contracted to remove waste oil and other chemicals from the facility, and specifications of the tank proposed to be used to store waste oil, if any;

(iv) For minor tumbling and cleaning of parts, a list of all additives to the wastewater, including both trade names, chemical names and their anticipated maximum concentrations

in the wastewater for all cleaning agents added to the wastewater;

(v) For carpet and upholstery cleaners, a list of the trade names, chemical names and their anticipated maximum concentrations in the wastewater for all cleaning agents added to the wastewater;

(vi) For minor blowdown from heating and cooling equipment, a list of all additives to the wastewater, including all trade names, chemical names and their anticipated maximum concentrations in the wastewater;

(vii) For furniture refinishing rinsewaters, a list of all chemicals used in the stripping and refinishing process and the results of a daily composite sample for methanol, methylene chloride, lead, zinc, total volatile organics, and pH (range during composite);

(viii) For radiator repair facility rinsewater, the results of a daily composite sample for lead, zinc, copper, tin, chromium and pH (range during composite).

(C) For discharges to groundwaters:

(i) For swimming pool filter backwash, the distances to the nearest drinking water well and subsurface sewage disposal system, and a list of the chemical names of all additives to the swimming pool water;

(ii) For groundwater contamination recovery systems for fuel oil or gasoline, a site plan drawn to a scale of no greater than one inch equals one hundred feet showing the location of all interceptor or recovery wells, estimated volume of product lost and the names and addresses of the person contracted to clean up the contamination and the consultant hired to design the proposed remedial action program.

(d) **Preliminary review.**

(1) Notwithstanding the provisions of section 22a-3a-1 of the Regulations of Connecticut State Agencies, upon receipt of an application for a new permit, the commissioner shall determine if all required information has been provided. If the commissioner determines that the application is incomplete or otherwise inadequate to allow a complete review, he or she shall so notify the applicant in writing within one hundred twenty (120) days of receipt of the application and state the reasons therefor.

(2)

(A) Notwithstanding the provisions of section 22a-3a-1 of the Regulations of Connecticut State Agencies, the commissioner shall determine if an application for renewal is timely and sufficient in accordance with this subsection. If the application for renewal is untimely or insufficient, the commissioner shall send written notice to the applicant within one hundred twenty (120) days of receipt of the application and state the reasons therefor.

(B) A determination that an application for renewal is untimely shall be a final decision and shall cause the existing permit to expire on its original expiration date. If the commissioner determines that an application is timely but insufficient, the applicant shall be allowed ninety days from the issuance of the notice of insufficiency to submit the information specified in the notice. If during the review of such information the commissioner determines that additional information is necessary, he or she shall send notice to the applicant stating the reasons for the determination and the applicant shall be allowed an additional ninety days from the issuance of such notice to submit the information specified in the notice. If the applicant fails to submit the information specified in any notice of insufficiency within ninety days of issuance of such notice, the determination of

insufficiency shall, at that time, become a final decision and the existing permit shall expire either upon its original expiration date or at the end of the ninety day period, whichever is later. If the applicant submits all necessary information in accordance with this subsection, the existing permit shall not expire until the end of the time period specified by section 4-182 (b) of the Connecticut General Statutes, as amended.

(C) Notwithstanding subparagraph (d) (2) (B) above, the commissioner may accept an untimely application no later than the expiration date of the permit and allow the existing permit to continue in effect beyond its original expiration date if, in his or her judgment, the permittee is likely to obtain a renewed permit upon reapplication and the public interest would best be served by allowing the permitted activity to continue uninterrupted.

(3) The completeness of an application shall be judged independently of the status of any other permit application or permit for the same facility or activity. The commissioner may delay processing a completed application if it is associated with another application which is incomplete or which may be denied.

(e) Tentative determination.

(1) If the commissioner determines that an application is complete, he or she shall make a detailed review of the application in order to tentatively determine whether the discharge will cause pollution of the waters of the state or whether any proposed system to treat the discharge will protect the waters of the state from pollution. In making such a determination, he or she shall determine that the following requirements will be met, as applicable:

(A) The effluent limitations and conditions listed in subsection (l) of this section, including any case-by-case determinations made under subsection (m) of this section.

(B) The treatment requirements listed in subsections (r) and (s) of this section.

(C) The prohibitions listed in subsection (t) of this section.

(D) The sludge disposal requirements listed in subsection (g) of section 22a-430-3 of the Regulations of Connecticut State Agencies.

(E) The bypass provisions of subsection (k) of section 22a-430-3 of the Regulations of Connecticut State Agencies.

(F) The resource conservation requirements of subsection (o) of section 22a-430-3 of the Regulations of Connecticut State Agencies.

(G) The spill prevention and control requirements of subsection (p) of section 22a-430-3 of the Regulations of Connecticut State Agencies.

(H) The instrumentation and related requirements of subsection (q) of section 22a-430-3 of the Regulations of Connecticut State Agencies.

(I) The equalization requirements of subsection (r) of section 22a-430-3 of the Regulations of Connecticut State Agencies.

(2) During such review the commissioner may require the submission of any additional information, results of analyses or data, the need for which becomes apparent upon review of the application, or the creation of any legal instruments which are necessary to properly evaluate the application. When such a tentative determination is made, the commissioner shall notify the applicant in writing of his or her tentative decision to deny the permit and the reasons therefor, or of his or her tentative decision to issue, renew or modify the permit, subject to the remaining requirements of the permit process. In making such a determination, the commissioner shall consider the factors specified in subdivisions (p) (2) and (3) of this

section and may also consider any prior violation by the applicant of any statute or regulation administered by the commissioner, or any order or permit issued by the commissioner.

(3) When a public notice is required, a copy of the notice sent to the applicant shall constitute the tentative determination. For each tentative determination to issue, renew, modify or, for NPDES permits, revoke a permit, the commissioner shall prepare and submit a draft permit in accordance with subsection (f) of this section.

(4) If a public notice is not required in accordance with section 22a-430-2 of the Regulations of Connecticut State Agencies as amended, and if the applicant has made the demonstrations required by subparagraph (k) (1) of this section, the commissioner shall issue an approval of plans and specifications, which approval shall constitute the final determination under subsection (i) of this section.

(5) When the tentative decision is to deny the permit, the applicant may request a hearing as provided in section 22a-436 of the Connecticut General Statutes, as amended.

(f) Draft permits, fact sheets.

(1) When a tentative determination has been made in accordance with subsection (e) of this section to issue, renew, modify or, for NPDES permits, revoke a permit, the commissioner shall prepare a draft permit, which shall include all requirements and conditions, either expressly or by specific reference, proposed to be included in the final permit. A copy of the draft permit shall be sent with the tentative determination to the applicant, and to any other person who requests it. This subsection shall not apply to minor modifications under subsection (p) of this section. A copy of the application, not including any information to be held confidential pursuant to section 22a-6 of the Connecticut General Statutes as amended, shall be sent to any person who requests it.

(2) For NPDES permits only, a fact sheet shall be prepared with each draft permit and for each decision to revoke a permit, and shall briefly describe the significant factual, legal, methodological and policy issues addressed in the draft permit or decision to revoke which are not described in the public notice under subsection (g) of this section, including but not limited to:

(A) A brief summary of the basis for the draft permit conditions including references to applicable statutory and regulatory provisions.

(B) Reasons why any requested variances from any requirements of subsection (l) of this section are or are not justified.

(C) For every permit to be issued to a privately owned treatment works, an explanation of the commissioner's decision to either issue a permit with no conditions applicable to any user, to impose conditions on one or more users, to issue separate permits, or to require separate applications.

(D) Any calculations or other necessary explanation of the derivation of alternate effluent limitations and conditions which are not specifically set forth in subsection (l) of this section.

(E) When the draft permit contains any of the following conditions, an explanation of the reasons why such conditions are applicable: (i) limitations to control toxic pollutants, (ii) limitations on internal waste streams, (iii) limitations on indicator pollutants, and (iv) limitations established on a case-by-case basis in accordance with subsection (m) of this section.

(F) If appropriate, a sketch of the location of the discharge.

(g) Public notice, notice of hearing.

(1) General Public Notice. Except as provided in section 22a-430-2 of the Regulations of Connecticut State Agencies as amended, the commissioner shall prepare a public notice of (A) his or her intent to issue, renew, modify, deny or, for NPDES permits, revoke a permit; (B) a public hearing on the intent to issue, renew, modify, revoke or deny a permit; or (C) a new source determination made under 40 CFR section 122.29. Such public notices shall contain sufficient information to describe the proposal including but not limited to the following, as applicable:

(A) The applicant and facility name and mailing and location addresses.

(B) Application or permit number.

(C) A description of the business and activities generating each discharge, including all applicable discharge categories.

(D) A description of the location, volume, frequency and nature of the discharge, including the type of treatment provided and types of toxic pollutants (from Appendices B and D) present in the discharge; whether limits have been placed on internal waste streams and whether the draft permit contains limits or conditions established on a case-by-case basis in accordance with subsection (m) of this section.

(E) Name of the receiving waters.

(F) Name, business address and telephone number of a person from whom interested persons may obtain additional information, including copies of the draft permit, application and fact sheet, if any.

(G) A brief description of the procedures and time periods allowed for commenting on the proposal, the time, place and purpose of any hearing that will be held, including a statement of procedures to request a hearing (unless a hearing has already been scheduled) and other procedures by which the public may participate in the final permit decision.

(H) An identification of all applicable limitations specifically established in subsection (I) of this section.

(I) A description of any variances from the requirements of subsection (I) of this section proposed to be granted.

(J) If a hearing is being scheduled, the dates of previous notices pertaining to the proposal in question.

(K) For NPDES permits only, when a request for a variance as provided in subparagraph (2) (A) (ii) of subsection (q) of this section is filed, the public notice shall include:

(i) A statement that the thermal component of the discharge is subject to effluent limitations in subsection (I) of this section and a brief description, including a quantitative statement, of the thermal effluent limitations proposed for the permit;

(ii) A statement that such a request has been filed and that an alternative less stringent effluent limitation may be imposed on the thermal component of the discharge and a brief description, including a quantitative statement of the alternative effluent limitations, if any, included in the request; and

(iii) If the applicant has filed an early screening request with the commissioner in accordance with 40 CFR 125.72, a statement that the applicant has submitted such a request.

(2) The Commissioner shall cause the public notice or notice of public hearing to be published in a newspaper or newspapers having a substantial circulation in the affected area.

(3)

(A) The commissioner shall provide copies of all public notices to the chief elected official, director of health, and chairpersons of the planning, zoning and conservation commissions of the municipality in which the discharge is or will be located, and to those persons and municipalities who have requested to be put on a mailing list for that purpose.

(B) The commissioner shall provide copies of all public notices for NPDES permits to the following persons or agencies:

(i) Federal and state agencies with jurisdiction over fish, shellfish, and wildlife resources and over coastal zone management, the Advisory Council on Historic Preservation, State Historic Preservation Officers, and other appropriate government authorities, including any affected States;

(ii) The U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service;

(iii) Any user identified in the permit application of a privately owned treatment works;

(iv) Persons on a mailing list developed by:

(a) Including those who request in writing to be on the list;

(b) Soliciting persons from participants in past permit proceedings in that area; and

(c) Notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press and in such publications as regional and state funded newsletters, environmental bulletins, or the Connecticut Law Journal.

(v) Each state agency having any authority under state law with respect to the construction or operation of such facility.

(C) For NPDES permits, the commissioner shall send copies of all fact sheets, permit applications and draft permits to the Regional Administrator and the persons listed under subdivisions (3) (B) (i), (ii) and (iii) above. For permits for discharges to POTWs, the commissioner shall send copies of the public notice to the Regional Administrator and to the superintendent of the POTW.

(D) For state permits, copies of all draft permits, public notices and permit applications shall be sent to any person who requests them.

(E) Any person except municipal officials listed above may by written notice waive their right to receive public notices, fact sheets, draft permits, and permit applications, and the commissioner may then cease sending public notices to that person. The commissioner may also periodically update the list of recipients of such documents by sending a notice by certified mail requesting written indication of continued interest from those listed. The commissioner may delete from the list the name of any person who fails to respond to such request within thirty days.

(4) The commissioner may use any other method necessary to give actual notice of the action in question to any person potentially affected by it.

(h) **Public comments.** During the comment period specified in the public notices, which shall be a minimum of thirty days, any interested person or municipality, including the applicant or permittee, may submit written comments on the proposal which is the subject of the public notice and, if no hearing has already been scheduled, may request such a hearing in accordance with the requirements of section 22a-430 of the Connecticut General Statutes, as amended. A request for a public hearing shall be in writing and shall state the

nature of the issues proposed to be raised in the hearing. A hearing shall be held upon receipt of a petition signed by at least twenty-five persons.

(i) Final determination.

(1) If public notice is given but no public hearing is held, the Director of Water Compliance shall review the application, supporting data, comments from Department staff and comments received during the comment period, and submit a report to the commissioner which incorporates or briefly describes and responds to all significant comments received, and recommends which provisions, if any, of the draft permit and tentative determination should be changed in the final determination and the reasons for any changes. If a public hearing is held on the application, the hearing officer shall submit such a report to the commissioner.

(2) The commissioner shall consider the report submitted to him in rendering a final determination which may authorize a subsequent action as described under section 22a-430 (b) of the Connecticut General Statutes as amended. A copy of the final determination and the report of the director or hearing officer shall be sent to the applicant or permittee and anyone else who requests it and shall be available to the public. Where no further action, including but not limited to construction of treatment facilities, is required, the final determination shall authorize, or may be incorporated in the issuance, renewal or modification of the permit.

(j) Public hearings. Public hearings shall be held pursuant to section 22a-430 of the Connecticut General Statutes as amended, in accordance with section 22a-3a-1 of the Regulations of Connecticut State Agencies, as amended.

(k) Submission of plans and specifications. Approval.

(1) If the applicant has received a final determination from the commissioner requiring the submission of plans and specifications or, if a public notice is not required, when submitting an application for a new, renewed or modified permit, the applicant shall, except as allowed under subparagraph (3) below, submit to the commissioner final construction plans and specifications and/or such other information as the commissioner deems necessary to demonstrate that (A) the existing or proposed system to treat the discharge is protecting or will protect the waters of the state from pollution and (B) the applicant is or, upon permit issuance, will be in compliance with all applicable requirements of section 22a-430-3 of the Regulations of Connecticut State Agencies and this section.

(2) Plans and specifications submitted under this subsection shall include at a minimum detailed drawings to scale of all collection, treatment and disposal facilities, including all individual unit operations and their interconnection, and illustrative drawings of process controls, piping, instrumentation, chemical feed equipment and alarms. Non-structural provisions such as grading, seeding and filling activities shall be shown in as much typical detail as the commissioner determines is necessary to show the intended function of such provisions.

(3) If the commissioner determines that such a demonstration in subparagraph (1) above has been made, he or she shall notify the applicant in writing that the system for treating the discharge is approved, and shall include such conditions as may be necessary to ensure compliance with Chapter 446k of the General Statutes, section 22a-430-3 of the Regulations of Connecticut State Agencies and this section, as amended.

(4) If the commissioner determines that such a demonstration has not been made, he or she shall notify the applicant in writing that the application is denied and the reasons therefor.

(5) If any person has not completed construction of the system approved under subparagraph (3) of this subsection within two years of the approval, the commissioner may revoke such approval and require that a new application be submitted. The commissioner may also require submission of a new application under the following conditions:

(A) An application has been determined by the commissioner to be complete and, at the applicant's request, no further action is taken by the commissioner for more than one hundred and eighty (180) days from the date the application is determined to be complete.

(B) More than one hundred eighty (180) days has elapsed since the Commissioner rendered a final determination on an application and the applicant has made no further contact with the department regarding the application.

(C) For a new or modified permit, an application is determined by the commissioner to be incomplete and more than one hundred and eighty (180) days has elapsed since the commissioner's most recent written request to the applicant or his or her agent for additional information and the applicant has not submitted all of such information.

(l) Establishing effluent limitations and conditions.

(1)

(A) The commissioner shall establish effluent limitations and/or other permit conditions for all discharges in order to protect the waters of the state from pollution, ensure compliance with Chapter 446k of the Connecticut General Statutes and regulations adopted thereunder and to ensure that his or her actions are consistent with the provisions of the CWA. Except as provided in subdivision (2) of this subsection, all such limitations and conditions shall be applied at the point of discharge.

(B) All permits shall contain, either specifically or by reference to the specific subsection, the requirements of subsections (b) and (d) through (r), inclusive, of section 22a-430-3 of the Regulations of Connecticut State Agencies and subsections (b), (l), (o), (r), (s) and (t) of this section.

(2) The commissioner may impose effluent limitations on internal wastewater streams before mixing with other wastewater streams in the following instances and, in such instances, the permit shall require that the monitoring required by subsection (j) of section 22a-430-3 of the Regulations of Connecticut State Agencies be applied to the internal wastewater streams instead of at the point of discharge:

(A) If effluent limitations or conditions imposed at the point of discharge would be impractical or infeasible;

(B) When monitoring the point of discharge would not provide meaningful information;
or

(C) When effluent limitations or conditions are established specifically for the type of wastewater that comprises the internal wastewater stream.

(3)

(A) Each permit shall include all applicable effluent limitations existing on the date of the final determination issued under subsection (i) of this section, except that if a new limitation is adopted between the date of the final determination and permit issuance, the

permit shall include the new limitation including a compliance schedule to meet such limitation if necessary, which compliance schedule shall require compliance as soon as possible but no later than an applicable deadline for the limitation as specified in this subsection or five years beyond the date of the final determination, whichever is earlier. If it is necessary for the schedule to exceed nine months from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement, including progress reports where the time between interim dates would otherwise exceed nine months.

(B) Notwithstanding the limitations specified in the permit, (1) the commissioner may, as specified in subdivision (d) (4) of section 22a-430-3 of the Regulations of Connecticut State Agencies, issue an order or, as specified in subdivision (p) (5) of this section, modify the permit to establish more stringent effluent limitations, including a compliance schedule to meet such limitations if necessary; and (2) the permittee must comply with subdivision (e) (2) of section 22a-430-3 of the Regulations of Connecticut State Agencies regarding toxic pollutants.

(4) All permits shall include the effluent limitations and/or conditions contained in this subsection, as applicable. If more than one limitation or condition applies to the same substance, pollutant or situation, the more stringent requirement shall apply. If a discharge for which an effluent limitation is incorporated in this subsection by reference to the CWA or CFR is mixed with another discharge prior to treatment, the applicable limitations shall be adjusted in accordance with 40 CFR 403.6 (e) or on the basis of a case-by-case determination in accordance with subsection (m) of this section, whichever is more stringent.

(A) For NPDES permits, except as specified in subparagraphs (B) and (C) below:

(i) Best Practicable Control Technology Currently Available (BPT), if established for the discharge at 40 CFR Parts 405 through 470 in accordance with section 301 CWA, or, if not so established, as determined pursuant to subsection (m) of this section.

(ii) For the substances listed in Appendix C, Best Conventional Pollutant Control Technology (BCT), if established for the discharge at 40 CFR Parts 405 through 470 pursuant to section 301 CWA, or, if not so established, as determined pursuant to subsection (m) of this section.

(iii) For the toxic substances listed in Appendix D and which meet the requirements of subdivision (l) (4) (A) (xvi) below, Best Available Technology Economically Achievable (BAT) if established for the discharge at 40 CFR Parts 405 through 470 pursuant to section 301 CWA, or, if not so established, as determined pursuant to subsection (m) of this section.

(iv) For the toxic substances listed in Appendix B, which are not in Appendix D and which meet the requirements of subdivision (l) (4) (A) (xvi) below, BAT if established for the discharge at 40 CFR Parts 405 through 470 pursuant to section 301 CWA, or, if not so established, as determined pursuant to subsection (m) of this section.

(v) For the substances identified in 40 CFR Part 129, the applicable standards and prohibitions contained therein.

(vi) For other substances, no later than July 1, 1987, BAT if established for the discharge at 40 CFR Parts 405 through 470 pursuant to section 301 CWA or, if not so established, as determined pursuant to subsection (m) of this section.

(vii) For new sources, New Source Performance Standards (NSPS) if established for the

discharge at 40 CFR Parts 405 through 470 in accordance with section 306 CWA.

(viii) Any other limitations or conditions established by EPA pursuant to the applicable requirements of sections 301, 302, 303, 306, 307, 318, and 405 of the CWA.

(ix) Applicable limitations or conditions listed in subsection (s) of this section.

(x) For any substance, limitations or conditions established in order to achieve consistency with the Connecticut Water Quality Standards or the Water Quality Standards of another state if the discharge affects that state, including consideration of the following factors:

(1) The physical, chemical, biological and hydraulic characteristics of the receiving waters.

(2) Acute and chronic toxicity to aquatic organisms.

(3) Bioaccumulation and persistence of toxic substances.

(4) Human health effects.

(5) Water quality criteria published pursuant to section 304 (a) of the Clean Water Act.

(6) Wasteload allocations.

(7) Results of effluent toxicity testing.

(8) Thermal impacts.

(9) Existing and future designated uses of the receiving waters.

(xi) For any substance, limitations or conditions established on a case-by-case basis in accordance with subsection (m) of this section, including those based on fundamentally different factors under 40 CFR Part 125, Subpart D.

(xii)

(1) Except for POTWs, where production-based effluent limitations have been adopted under this subsection and as the commissioner otherwise deems necessary, effluent limitations shall be based on actual or reasonably anticipated production using the same time period expressed in any applicable limitation. For a facility discharging part of a wastewater stream to a POTW or to the ground or ground water, if the wastewater stream is subject to production-based mass limitations, the limitations shall be adjusted in direct proportion to the relative flows to surface waters, ground, groundwaters and/or POTW, unless a more stringent limitation has been adopted under this subsection.

(2) If the permit limitations are based on reasonably anticipated production, the permit shall require the permittee to notify the commissioner at least two business days prior to a month in which the permittee expects to operate at a level higher than the lowest production level identified in the permit. The notice shall specify the anticipated level and the period during which the permittee expects to operate at the alternate level. If the notice covers more than one month, the notice shall specify the reasons for the anticipated production level increase. New notice of discharge at alternate levels is required to cover a period or production level not covered by prior notice or, if, during two consecutive months otherwise covered by a notice, the production level at the permitted facility does not in fact meet the higher level designated in the notice.

(3) The permittee shall comply with the limitations that correspond to the lowest level of production specified in the permit, unless the permittee has notified the commissioner under paragraph (2) above, in which case the permittee shall comply with the lower of the actual level of production during each month or the level specified in the notice.

(4) The permittee shall submit with its monitoring report required by subsection (j) of section 22a-430-3 of the Regulations of Connecticut State Agencies the level of production that actually occurred each month and the limitations applicable to that level of production.

(xiii) For continuous discharges other than those from POTWs, all effluent limitations shall, unless impracticable, be stated as maximum daily and average monthly limitations. For POTWs, all effluent limitations shall be stated as average weekly and average monthly limitations. For noncontinuous discharges, except stormwater, effluent limitations shall be established considering such factors as the frequency and rate of discharge and maximum batch concentration or quantity.

(xiv) All permit limitations shall be expressed in terms of mass except:

(1) pH, temperature, radiation and other substances which cannot appropriately be expressed in terms of mass;

(2) when applicable effluent limitations are expressed in terms of other units of measurement; or

(3) if in establishing effluent limitations on a case-by-case basis under subsection (m) of this section, limitations expressed in terms of mass are infeasible because the mass of the substance cannot be related to a measure of operation, and permit conditions ensure that dilution will not be used as a substitute for treatment.

(xv) If effluent limitations have been established in this subsection for a discharge, the permit limitations shall be expressed in the same units of measurement as the established effluent limitation, and may also be expressed in other units of measurement. If the permit includes limitations in terms of more than one unit of measurement, the permittee shall comply with both limitations.

(xvi) Effluent limitations shall be included in permits to control all toxic substances which the commissioner determines are or may be discharged at a level greater than the level which can be achieved by the applicable requirements of subparagraphs (l) (4) (A) (i) through (ix) of this section. The requirement that the limitations control all such substances will be satisfied by limitation on those substances or limitations on indicator substances which, in the judgment of the commissioner, will provide treatment of toxic substances to the levels required by subparagraphs (l) (4) (A) (i) through (ix) of this section.

(xvii)

(1) Upon request of the discharger, the commissioner may adjust effluent limitations other than those established pursuant to subparagraph (4) (A) (x) of this subsection to reflect credit for substances in the discharger's intake water if the discharger demonstrates that the control system it proposes or uses to meet applicable limitations would, if properly operated and maintained, meet the limitations in the absence of such substances in the intake waters.

(2) Credit for substances other than generic substances shall be given only if the substances for which credit is requested are the same as the substances in the intake water which prevent compliance, except for generic substances. Credit for generic substances such as biochemical oxygen demand (BOD) or total suspended solids (TSS) shall not be granted unless the permittee demonstrates that the constituents of the generic measure in the effluent are substantially similar to the constituents of the generic measure in the intake water or unless appropriate additional limits are placed on process wastewater substances.

(3) Credit shall be granted only to the extent necessary to meet the applicable limitation,

up to a maximum value equal to the influent value. Additional monitoring may be required by the commissioner to determine initial and on-going eligibility for credits and compliance with permit limits and the permit shall include all such additional monitoring requirements.

(4) Credit shall be granted only if the discharger demonstrates that the intake water is drawn from the same body of water into which the discharge is made. The commissioner may waive this requirement if he finds that no environmental degradation will result.

(5) This subdivision does not apply to the discharge of water production wastewaters.

(6) The discharger shall report any changes to his or her operation which may affect eligibility for intake credits in writing to the commissioner within thirty days of the change becoming effective.

(xviii) The commissioner may allow the use of techniques such as flow augmentation and in-stream aeration as a method of achieving water quality standards only when:

(1) After installation of the required technology, the permittee demonstrates that the applicable technology based effluent limitations of subparagraph (4) (A) (iii) of this subsection are not sufficient to achieve the standards;

(2) The permittee agrees to waive any opportunity to request a variance under subparagraph (2) (B) (ii) of subsection (q) of this section; and

(3) The permittee demonstrates to the commissioner's satisfaction that such a technique will better protect the environment than the use of other available methods such as advanced waste treatment, recycle and reuse, land disposal and changes in operating methods.

(xix) If the District Engineer of the U.S. Army Corps of Engineers advises the commissioner in writing that anchorage and navigation of any of the waters of the United States would be substantially impaired by the granting of a permit, and that imposing specified conditions upon the permit is necessary to avoid such impairment, then the commissioner shall include the specified conditions in the permit. Review or appeal of conditions required by the District Engineer or denial under subparagraph (p) (2) (D) of this subsection shall be made through the applicable procedures of the Corps of Engineers, and may not be made through the procedures specified in section 22a-430. If the conditions are stayed by a court of competent jurisdiction or by applicable procedures of the Corps of Engineers, those conditions shall be considered stayed in the NPDES permit for the duration of that stay.

(xx) If the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, or any other State or Federal Agency with jurisdiction over fish, wildlife, or public health advises the commissioner in writing that the imposition of specified conditions in the permit is necessary to avoid substantial impairment of fish, shellfish, or wildlife resources, the commissioner may include the specified conditions in the permit.

(xxi) Effluent limitations or conditions shall be included which meet the applicable requirements of 40 CFR Part 125 Subpart M for ocean dischargers.

(xxii) For a privately owned treatment works, any conditions in the permit issued to the treatment works expressly applicable to any discharger to the treatment works that may be necessary to enable the treatment works to comply with its permit. Alternatively, the commissioner may issue separate permits to the treatment works and any dischargers to it and may require separate applications from any such discharges.

(xxiii) When an NPDES permit is renewed or modified, it shall contain limitations,

standards and conditions which are at least as stringent as the final limitations, standards, and conditions in the previous permit unless (1) the circumstances on which the previous permit was based have changed and would, in accordance with subsection (p) of section 22a-430-3 of the Regulations of Connecticut State Agencies, constitute cause for modification or (2) when effluent limitations were imposed on a case-by-case basis in accordance with subsection (l) of this section in the previously issued permit and these limitations are more stringent than subsequently adopted limitations, and:

(1) The discharger has installed the treatment facilities required to meet the effluent limitations in the previous permit and has properly operated and maintained the facilities but has nevertheless been unable to achieve the previous effluent limitations. In this case the limitations in the renewed permit may reflect the level of treatment actually achieved but shall not be less stringent than required by the subsequently adopted limitation; or

(2) The subsequently adopted limitations are based on BCT.

(xxiv) When a permit is issued to a facility which may operate at certain times as a means of transportation over water, it shall include conditions requiring compliance with applicable regulations promulgated by the Secretary of the department in which the U.S. Coast Guard is operating, that establish specifications for safe transportation, handling, carriage and storage of wastes.

(xxv) All effluent limitations for metals shall be in terms of the total recoverable metal, unless an applicable limit has been established under subsection (l) of this section for the dissolved or valent form, or unless all approved analytical methods inherently measure only the dissolved or valent form or unless the commissioner limits only the dissolved fraction.

(B) For NPDES permits for POTWs, the provisions of subparagraphs (l) (4) (A) (i) through (ix) of this section shall not apply, and the following limitations and conditions apply in addition to those specified in subparagraph (l) (4) (A) (x) through (xxiv):

(i) Limitations which are attainable through the use of secondary treatment as defined in subsection (r) of this section.

(ii) Any conditions imposed in grants made by the Administrator to POTWs under section 201 and 204 CWA, or by the commissioner under section 22a-439-1 through 22a-439-4 of the Regulations of Connecticut State Agencies as amended, which are necessary to ensure compliance with applicable effluent limitations.

(iii) Any conditions regarding the disposal of sewage sludge, required by section 405 of the CWA or regulations adopted thereunder.

(iv) Effluent limitations shall be based on design flow.

(C) For NPDES permits for facilities discharging only domestic sewage which are not POTWs, the provisions of subparagraphs (l) (4) (A) (i) through (ix) of this section shall not apply. In addition to the limitations and conditions specified in subparagraphs (l) (4) (A) (x) through (xxv), the permittee shall meet BAT if established for the discharge at 40 CFR parts 405 through 470 pursuant to section 301 CWA or, if not so established, the requirements listed in subsection (r) of this section or limitations established on the basis of a case-by-case determination in accordance with subsection (m) of this section, whichever are more stringent.

(D) For permits for discharges to POTWs:

(i) If established for the discharge at 40 CFR Parts 405 through 470 in accordance with

section 307 CWA, PSNS for new sources and PSES for all other discharges. Existing discharges to surface waters or ground waters which are redirected to a POTW after adoption of a pretreatment standard shall meet PSES, unless the discharge is a new source, in which case PSNS requirements shall be met at the time the redirected discharge is commenced.

(ii) Applicable limitations listed in subsection (s) of this section.

(iii) For any substance, limitations or conditions established on a case-by-case basis in accordance with subsection (m) of this section.

(iv) For any substance, limitations or conditions established in order to achieve consistency with the Connecticut Water Quality Standards or the Water Quality Standards of another state if the discharge affects that state, including consideration of the following factors:

(a) The physical, chemical, biological and hydraulic characteristics of the receiving waters.

(b) Acute and chronic toxicity to aquatic organisms.

(c) Bioaccumulation and persistence of toxic substances.

(d) Human health effects.

(e) Water quality criteria published pursuant to section 304 (a) of the Clean Water Act.

(f) Wasteload allocations.

(g) Results of effluent toxicity testing.

(v) Limitations or conditions established in order to ensure compliance with subsection (t) of this section.

(vi) When a permit is renewed or modified for a discharge to a POTW, it shall contain effluent limitations which are at least as stringent as the effluent limitations in the previous permit, unless (1) the circumstances or information on which the previous permit was based have changed and would, in accordance with subsection (p) of this section, constitute cause for modification or (2) if the discharger has installed the treatment facilities required to meet the effluent limitations in the previous permit and has shown to the commissioner's satisfaction that he or she has properly operated and maintained the facilities but has nevertheless been unable to meet the previous limitations. In this case the limitations in the renewed permit may reflect the level of treatment actually achieved but shall not be less stringent than required by any limitation specified in subparagraph (l) (4) (D) of this section other than under (D) (iii).

(E) For permits for discharges to the ground waters of the state:

(i) Applicable limitations listed in subsection (s) of this section.

(ii) For any substance, limitations or conditions established on a case-by-case basis in accordance with subsection (m) of this section.

(iii) For any substance, limitations or conditions established in order to achieve consistency with the Connecticut Water Quality Standards or the Water Quality Standards of another state if the discharge affects that state, including consideration of the following factors:

(a) The physical, chemical, biological and hydraulic characteristics of the receiving waters.

(b) Acute and chronic toxicity to aquatic organisms.

(c) Bioaccumulation and persistence of toxic substances.

(d) Human health effects.

(e) Water quality criteria published pursuant to section 304 (a) of the Clean Water Act.

(f) Wasteload allocations.

(g) Results of effluent toxicity testing.

(F) The commissioner may include any other condition in a permit which he or she deems reasonably necessary to ensure compliance with chapter 446k of the Connecticut General Statutes and regulations adopted thereunder as amended, to ensure that his or her actions are consistent with the CWA and to ensure proper operation of a treatment facility or any other part thereof.

(5)

(A) No discharge may cause acute or chronic toxicity in the receiving water, either singly or in combination with other discharges considering any zones of influence established consistent with the Connecticut Water Quality Standards, as amended. Limitations on toxicity may be expressed in terms of the percent concentration of discharge in the receiving water below which no acute or chronic toxicity will occur. Compliance with limitations on toxicity shall be determined as follows:

(i) For acute toxicity, based on the results of acute toxicity tests conducted on representative samples of the discharge in accordance with subsection (j) of Section 22a-430-3 of the Regulations of Connecticut State Agencies. A discharge shall be considered acutely toxic if the LC50 concentration multiplied by an application factor of 0.33 is less than the discharge limitation expressed above with the exception of discharges which exceed thirty three percent concentration in the receiving water in which case the discharge will be considered acutely toxic if the NOAEL concentration is less than the discharge limitation expressed above.

(ii) For chronic toxicity, based on the results of acute toxicity tests conducted on a representative sample of the discharge in accordance with subsection (j) of section 22a-430-3 of the Regulations of Connecticut State Agencies. A discharge shall be considered chronically toxic if the LC50 concentration multiplied by an application factor of 0.05 is less than the discharge limitation expressed above, with the exception of discharges which exceed fifteen percent concentration in the receiving water in which case the discharge will be considered chronically toxic if the NOAEL concentration multiplied by an application factor of 0.15 is less than the discharge limitation expressed above.

(iii) In lieu of determining compliance with chronic toxicity limitations pursuant to subparagraph (A) (ii) above, the commissioner may determine compliance based on any other information he or she deems relevant including but not limited to the information specified in subparagraph (I) (5) (A) (v) of this section and subparagraph (j) (7) (B) (i) of section 22a-430-3 of the Regulations of Connecticut State Agencies.

(iv) In determining compliance with discharge limitations on acute and chronic toxicity the arithmetic average of all total daily flows for all operating days within the previous thirty consecutive operating days may be used in lieu of the permitted average flow provided the total flow for any single operating day does not exceed the average daily flow for the previous thirty consecutive operating days by more than twenty-five (25) percent. In making such a determination, the commissioner may consider the hours of operation of the facility.

(v) Mixing of a discharge with receiving water provides for no reduction in the toxicity

of that discharge with the exception of that which occurs due to dilution of the discharge unless the applicant demonstrates to the satisfaction of the commissioner that the physical or chemical composition of the receiving waters has a measurable capacity to assimilate toxicity present in the discharge or that one or more of the chemical substances present in the discharge degrade rapidly due to naturally occurring physical, chemical, or biological processes in the receiving water rendering the discharge less toxic than can be accounted for by dilution alone. Demonstration of the existence, magnitude, and rate of the above mentioned processes shall be accomplished through submission of the following:

(a) Acute or chronic toxicity test data comparing the toxicity of representative discharge samples diluted with water taken from the receiving water with the toxicity of aliquots of these same samples diluted with synthetic freshwater, estuarine water, or marine water used to determine compliance with discharge limitations for toxicity;

(b) Physical and chemical analysis data concerning the degradation of substances responsible for toxicity known to be present in the discharge and responsible for discharge toxicity following discharge to the receiving waters. This data shall be collected under conditions which can reasonably be expected to occur at the discharge site during 7Q10 conditions or such other low flow conditions consistent with the Connecticut Water Quality Standards as amended and may include data collected in the receiving waters at the discharge site; a summary of data collected at other similar sites; laboratory studies designed to mimic natural conditions; and any other information the commissioner deems relevant.

(c) The results of chronic toxicity tests conducted on representative samples of the effluent in accordance with subdivision (10) of subsection (j) of section 22a-430-3 of the Regulations of Connecticut State Agencies.

(B) The commissioner may establish seasonal permit limitations for acute and chronic toxicity pursuant to subparagraph (A) of this subdivision provided the applicant demonstrates to the satisfaction of the commissioner that:

(i) Appropriate facilities have been installed or operational modifications made to adequately regulate and control the rate of discharge and toxicity of the effluent, for each seasonal permit period, and

(ii) Seasonal permit limits will result in no acute or chronic toxicity in the receiving water during each seasonal permit period including consideration of the expected composition of the aquatic biological community during each seasonal permit period with respect to the possible presence of sensitive life stages or events such as migration and spawning which may occur during the seasonal permit period.

(C) Notwithstanding the provisions of subparagraphs (A) and (B) of this subdivision, the commissioner may determine that water quality-based effluent limitations to protect aquatic organisms from chronic toxic impacts are not required provided:

(i) The applicant demonstrates to the satisfaction of the commissioner that no reasonable relationship exists between the economic and social costs of attaining the objectives of the Federal Clean Water Act and section 22a-430 of the Connecticut General Statutes, including attainment of the uses designated for the receiving waters in accordance with the Connecticut Water Quality Standards, and the benefits to be gained by achieving the above mentioned objectives pursuant to the provisions of section 302 of the Federal Clean Water Act, and;

(ii) The applicant conducts a use attainability analysis according to the practices and procedures set forth in the Federal Water Quality Standards Regulations (48 FR 51400) demonstrating to the satisfaction of the commissioner that the designated uses for the receiving waters established in the Connecticut Water Quality Standards can not be attained regardless of the type and degree of treatment provided to the effluent, including elimination of the discharge from the receiving stream.

(D) Except as allowed by subparagraph (D) (iii) below for chronic toxicity, limitations on acute and chronic toxicity established in accordance with subparagraph (I) (5) (A) above shall be incorporated in permits in accordance with the following schedule:

(i) For new and renewed permits, upon permit issuance or renewal.

(ii) For existing permits, through permit modification, no earlier than July 1, 1988, if the results of testing required by subparagraph (10) (A) of subsection (j) of section 22a-430-3 of the Regulations of Connecticut State Agencies have been submitted to the commissioner, and at any time after January 1, 1989 notwithstanding compliance by the permittee with such requirements.

(iii) In the case of an existing discharge, an applicant or permittee may elect to undertake additional studies, or provide additional documentation or other information in accordance with subparagraph (j) (7) (B) (i) of section 22a-430-3 of the Regulations of Connecticut State Agencies in order to justify alternative limitations on chronic toxicity only. The applicant or permittee must notify the commissioner of his or her intent in this regard, either as part of the report required by subparagraph (j) (10) (A) of section 22a-430-3 of the Regulations of Connecticut State Agencies, or with the permit renewal application, whichever required date is earlier. If such a notification is received by the commissioner in a timely manner, the limitations on chronic toxicity shall be incorporated in the permit no earlier than July 1, 1990. Such notification shall not stay the incorporation of acute toxicity limitations in accordance with subparagraphs (D) (i) and (D) (ii) above.

(m) Case-by-case determinations

(1) In establishing permit limitations or conditions on a case-by-case basis pursuant to subsection (I) of this section, the commissioner shall consider the following factors: the impacts of the discharge on the receiving waters or its use or any sewerage system or the operation thereof, treatability of the wastewater in question, potential for spills, leaks or other uncontrolled releases, including but not limited to releases of toxic organic chemicals, and any other factors which he or she deems necessary. In making such an evaluation, the commissioner shall consider the discharge both alone and in combination with other discharges to the same receiving waters.

(2) Prior to establishing effluent limitations or conditions on a case-by-case basis, the commissioner shall determine that the facilities, procedures or means required to meet those limitations and conditions are (A) successfully employed by a reasonable number of dischargers of the type of wastewater in question or (B) capable of treating the wastewater to the degree required without creating an undue burden on the discharger. In the case of NPDES permits, in determining whether an undue burden will be created, the commissioner shall consider the factors listed at 40 CFR 125.3 (D).

(n) Permit issuance or renewal.

(1) When the applicant has verified in writing to the commissioner that he or she has

installed the system for treating the discharge in full compliance with the approval issued under subsection (k) of this section and has complied with all conditions of said approval or the final determination issued under subsection (i) of this section, and the commissioner is satisfied that the system has been so installed, or when the final determination has authorized the issuance, renewal or modification of the permit, the commissioner shall issue, renew or modify the permit. The permit shall be subject to the requirements of section 22a-430 (c) and shall contain all applicable requirements of this section and section 22a-430-3 of the Regulations of Connecticut State Agencies either specifically or by reference to a specific section.

(2) A copy of the final permit shall be sent to the applicant, any other person or municipality requesting a copy, and, for NPDES permits only, the Regional Administrator.

(o) Permit or Application Transfer.

A permit or application may not be transferred without the prior written approval of the commissioner. To request such approval, a permittee or applicant shall, at least thirty days prior to the proposed transfer date, submit to the commissioner a written agreement between the existing and new permittee or applicant which contains a specific date for the transfer of permit responsibility and coverage between them and is signed by all parties in accordance with subparagraph (b) (2) (A) of section 22a-430-3 of the Regulations of Connecticut State Agencies. Upon review of such agreement, the commissioner shall either send a notice to the permittee or applicant denying the request and briefly stating the reasons for such denial, or approve the transfer by letter in the case of a transferred application or, for a transferred permit, modifying the permit in accordance with subsection (p) of this section to identify the new permittee and incorporate such other requirements as may be necessary. In reviewing a transfer request, the commissioner may consider any noncompliance by the transferee with any statute or regulation administered by the commissioner or any order or permit issued by the commissioner. In lieu of denial of the transfer, the commissioner may require the transferee to submit an application for a new permit or a modified permit.

(p) Permit revocation, denial or modification.

(1) The commissioner may revoke or modify a permit on his or her own initiative or on request of the permittee or any other person or municipality for the reasons specified in this subsection. All requests shall be in writing and contain facts and reasons supporting the request. A permittee requesting revocation of a permit shall state the requested date of revocation and shall, prior to revocation, provide the commissioner with satisfactory evidence that the discharge has been permanently eliminated. The commissioner shall notify the person making the request and the permittee in writing of the disposition of the request within ten days of making a decision.

(2) The commissioner shall deny a permit application in the following circumstances:

(A) When the commissioner determines in accordance with subsection (e) of this section that the imposition of conditions cannot ensure that the discharge, either singly or in combination with other discharges, (i) would not cause or contribute to pollution or that any proposed system to treat the discharge will protect the waters of the state from pollution as determined in accordance with subsection (e) of this section, (ii) would not endanger human health or the environment or (iii) would be consistent with the Connecticut Water

Quality Standards and the water quality standards of another state.

(B) For a new discharge or a new source discharging into a water body which does not meet the Connecticut Water Quality Standards, if a waste load allocation has been developed for that water body, and if insufficient allocations exist for that discharge, or if any discharges into the water body existing at the time of the application are not yet subject to compliance schedules to bring the water body back into compliance with the Water Quality Standards.

(C) When the conditions of the permit do not assure compliance with chapter 446k of the Connecticut General Statutes and regulations adopted thereunder as amended, or when the issuance of the permit would not be consistent with the provisions of the Clean Water Act.

(D) When, in the judgment of the Secretary of the Army, anchorage and navigation would be substantially impaired by the discharge.

(E) For the discharge of any radiological, chemical or biological warfare agent or high level radioactive waste.

(F) For NPDES permits only, when the Regional Administrator objects to the issuance of the permit as allowed under 40 CFR Part 123.44.

(G) Where he or she has insufficient information to determine whether the applicant will be able to comply with chapter 446k of the Connecticut General Statutes and regulations adopted thereunder as amended.

(3) The commissioner may deny a permit application in accordance with section 22a-430 of the Connecticut General Statutes and section 22a-3a-1 of the Regulations of Connecticut State Agencies as amended for the following reasons:

(A) Noncompliance by the permittee with any statute or regulation administered by the commissioner, or any order or permit issued by the commissioner; or

(B) The applicant's failure in the permit issuance process to submit a completed application or disclose fully all relevant facts, or to comply with any conditions of an approval issued pursuant to subsection (k) of this section, or the applicant's misrepresentation of any relevant facts at any time.

(4) The commissioner may revoke a permit during its term in accordance with section 4-182 (c) of the Connecticut General Statutes as amended, for the following reasons:

(A) Noncompliance by the permittee with any statute or regulation administered by the commissioner, or any order or permit issued by the commissioner;

(B) The applicant's failure in the permit issuance process to submit a completed application or disclose fully all relevant facts, or the applicant's misrepresentation of any relevant facts at any time;

(C) The discharge is likely to endanger human health or the environment and the commissioner determines that permit revocation or denial is necessary to alleviate such danger; or

(D) A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge authorized by the permit, including but not limited to plant closure or connection to a POTW.

(5)

(A) The commissioner may modify a permit during its term in accordance with this

section for the reasons specified in subdivision (4) of this subsection or for any reason specified in subdivision (d) (4) of section 22a-430-3 of the Regulations of Connecticut State Agencies or 40 CFR 122.62, provided:

(i) Such modification can not reasonably be expected to result in pollution of the waters of the state, or any other condition which would violate the provisions of Chapter 446k of the General Statutes, or regulations adopted thereunder as amended;

(ii) Such modification will result in a permit no less stringent than allowed by the Clean Water Act and the Safe Drinking Water Act and regulations adopted thereunder; and

(iii) Such modification does not extend the term of the permit unless such modification is also part of a permit renewal.

(B) The commissioner may make the following minor modifications to a permit with or without following the procedures specified in subsection (g) of this section.

(i) correct typographical errors;

(ii) with the consent of the permittee, require more or less frequent or new monitoring or reporting by the permittee, provided the minimum requirements of subsection (j) of section 22a-430-3 of the Regulations of Connecticut State Agencies are met, and the new monitoring does not authorize the discharge of a substance not authorized by the previous permit;

(iii) with the consent of the permittee, change an interim compliance date in a schedule of compliance, provided, for NPDES permits only, the new date is not more than one hundred twenty (120) days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement;

(iv) with the consent of the permittee, transfer ownership or operational control of a facility where the commissioner determines that no other change in the permit is necessary, provided the procedures specified in subsection (o) of this section are followed;

(v) with the consent of the permittee, delete a discharge, pollutant or substance from the permit when the discharge or the use of the pollutant or substance is terminated or if the pollutant or substance was never used, and the change does not result in a discharge from another location, except in accordance with existing permit limits; or

(vi) bring the permittee into conformance with a new or revised method of collection or treatment approved by the commissioner, provided such minor modification does not result in a permit which is less stringent than the existing permit.

(vii) With the consent of the permittee, make limitations on existing pollutants or other permit conditions more stringent, including the addition of limitations on acute and chronic toxicity in accordance with subsection (l) of this section.

(C) For NPDES permits only, if any limitation on a toxic substance is adopted in subsection (l) of this section by incorporation by reference to section 307 (A) of the CWA, and that limitation is more stringent than any limitation in the permit or affects a substance not already limited in the permit, the commissioner shall modify the permit in accordance with this subsection.

(D) When the commissioner intends to modify a permit, he or she shall indicate in the public notice those terms and conditions which he or she proposes to modify and any other terms and conditions which are subject to revision. Only those provisions which are specified as subject to revision may be modified. The permit as modified shall continue in

effect for the remainder of its original term.

(E) The commissioner may require the applicant to submit a complete application for renewal of a permit in lieu of a request for modification.

(6) The permittee shall comply with all conditions of the existing permit until the permit is revoked or modified.

(q) Variances

Variances from the requirements of subsection (l) of this section which are specified in this subsection may be granted by the commissioner in accordance with the following procedures:

(1) General

(A) All variance requests shall be submitted in writing by the applicant as part of an application for permit issuance, renewal or modification under subsection (a) or (b) of this section, and shall include information which the commissioner determines is necessary to review the request, including but not limited to the following:

- (i) The requirement from which the variance is requested;
- (ii) A description of the variance sought;
- (iii) Documentation that alternatives exist or, for new discharges, will be provided, which ensure protection of the environment and the public health, safety and welfare at least equivalent to the requirement, and that such requirement is clearly not justified.

(B) No variance from any provision of this section or section 22a-430-3 of the Regulations of Connecticut State Agencies may be granted unless it is authorized by this subsection, and no variance may be granted which violates or results in a violation of or inconsistency with the Connecticut General Statutes or the Connecticut Water Quality Standards, or which creates a real or potential threat to public health, safety or welfare or the environment, or which causes an adverse impact on the operation of any sewerage system, or existing or proposed method of sludge disposal for such system.

(C) In requesting renewal of a permit which includes a variance, the applicant shall apply for and justify the renewal of said variance in accordance with the provisions of this subsection.

(D) The commissioner may grant a variance from the technology requirements of subdivision (1) of subsection (s) of this section if the applicant demonstrates to the satisfaction of the commissioner that the proposed alternative is capable of meeting the applicable effluent limitations required in subsection (s) of this section.

(E) The commissioner may limit the duration of a variance and include in a variance any conditions which he or she deems necessary. A variance may be revoked or modified for failure to comply with any such condition.

(F) For discharges to POTWs, the commissioner may include in a permit any variances granted by EPA based on fundamentally different factors in accordance with the criteria and procedures provided in 40 CFR 403.13 and in this subsection.

(G) For existing discharges only, the commissioner may grant a variance which allows less stringent effluent limitations than those listed in subparagraph (2) of subsection (s) of this section, but in no case less stringent than any other limitations required by subsection (l) of this section, based on a showing by the applicant that he or she has:

- (i) Installed and operated facilities meeting the applicable technology requirements of

subparagraph (1) of subsection (s) of this section in a manner approved by the commissioner;

(ii) Demonstrated that such limitations are not achievable using such facilities;

(iii) Demonstrated that reasonable adjustments or additions to the treatment or production facilities will not result in compliance with such limitations, including but not limited to the use of alternate treatment chemicals, variation of treatment conditions, raw material substitution and additional control facilities; and

(iv) Submitted an application for a permit modification or renewal which documents the actual level of treatment attainable by the installed facilities and which specifies the alternate limitation(s) requested.

(2) Additional Variances for NPDES Permits, except Discharges from POTWs

(A) The commissioner may grant or deny requests for the following variances, subject to EPA objection:

(i) After consultation with the Regional Administrator, extensions of the deadline for BAT based on the use of innovative technology, in accordance with the criteria and procedures specified in 40 CFR Part 125 Subpart C.

(ii) Alternate effluent limitations for thermal discharges in accordance with the criteria and procedures specified in 40 CFR Part 125 Subpart H. The applicant shall send a copy of any variance request submitted under this paragraph to the U.S. Secretary of the Interior and Secretary of Commerce.

(B) The commissioner may deny, or forward to the Regional Administrator with a written concurrence, or submit to EPA without recommendation a completed request for:

(i) A variance based on the presence of fundamentally different factors in accordance with 40 CFR Part 125 Subpart D. Such request shall explain how the requirements of 40 CFR Part 125 Subpart D have been met.

(ii) A variance for any discharger which is not a POTW from the BAT limitations for non-conventional pollutants in accordance with 40 CFR Part 125 Subpart F, pursuant to section 301 (g) CWA because of the environmental considerations specified therein, when those limitations were adopted in subsection (l) of this section by incorporation by reference to the CWA or CFR. This variance is only available for effluent limitations adopted after December 27, 1977, and must be filed no later than 270 days after the adoption of the applicable limitation and must demonstrate that the requirements of 40 CFR Part 125 have been met.

(C) The commissioner may grant variances from the secondary treatment requirements of subparagraph (r) (1) of this subsection in accordance with this subsection and subparagraphs (r) (2) and (r) (3) of this section.

(r) Secondary treatment requirements for POTWs and facilities discharging only domestic sewage to surface waters:

(1) The following effluent limitations shall apply:

(A) Biochemical oxygen demand (five day).

(i) The average concentration of all daily composite samples taken over any thirty consecutive day period shall not exceed 30 milligrams per liter.

(ii) The average concentration of all daily composite samples taken in any seven consecutive day period shall not exceed 45 milligrams per liter.

- (iii) The maximum daily concentration shall not exceed 50 milligrams per liter.
- (iv) The average effluent concentration shall not exceed 15 percent of the average influent concentration for all daily composite samples taken in any thirty consecutive day period.

(B) Suspended solids.

- (i) The average concentration of all daily composite samples taken in any thirty consecutive day period shall not exceed 30 milligrams per liter.
- (ii) The average concentration of all daily composite samples taken in any seven consecutive day period shall not exceed 45 milligrams per liter.
- (iii) The maximum daily concentration shall not exceed 50 milligrams per liter.
- (iv) The average effluent concentration shall not exceed 15 percent of the average influent concentration for all daily composite samples taken in any thirty consecutive day period.

(C) pH. The effluent values for pH shall be maintained within the limits of 6.0 to 9.0 unless the permittee demonstrates as part of an application for permit issuance, renewal or modification, that:

(i) Inorganic chemicals are not added to the waste stream as part of the treatment process; and

(ii) Contributions from industrial sources do not cause the pH of the effluent to be less than 6.0 or greater than 9.0.

(2) Certain POTWs may not be capable of meeting the percentage removal requirements of subparagraph (1) of this subsection during wet weather if they receive flow from combined sewers (sewers which are designed to transport both storm water and sanitary sewage). For such POTWs, the commissioner may determine an alternate required percentage removal level unless another more stringent requirement applies under subsection (l) of this section.

(3) For certain process wastewater discharges, the allowable discharge to surface waters of biochemical oxygen demand and suspended solids permitted in an NPDES permit may be less stringent than the values given in subparagraph (1) of this subsection. In cases where wastes would be introduced from such an industrial category into a publicly owned treatment works, the commissioner may increase the effluent limitations for the POTW for biochemical oxygen demand and suspended solids beyond those listed in subparagraph (1) (A) of this subsection provided:

(i) The permitted discharge of such pollutants, attributable to the process wastewater discharge, would not be greater than that which would be permitted under an NPDES permit for such discharge directly into the surface waters, and

(ii) the flow or loading of such pollutants introduced by the process wastewater discharge exceeds ten (10) percent of the design flow or loading of the publicly owned treatment works. When such an adjustment is made, the values for biochemical oxygen demand or suspended solids in subparagraph (1) of this subsection should be adjusted proportionally.

(s) **Treatment requirements**

(1) For metal finishing discharges, nonferrous metals manufacturing discharges, iron and steel manufacturing discharges, electrical and electronic components discharges, aluminum forming discharges, battery manufacturing discharges, coil coating discharges,

Regulations of Connecticut State Agencies

copper forming discharges and metal molding and castings discharges, if any of the following substances are present in a discharge at concentrations higher than the limitations allowed in subparagraph (2) of this subsection prior to mixing with other categories of discharge, the listed treatment technology is required:

(A) Cyanide. Complete destruction beyond the cyanate form prior to mixing with non-cyanide wastewaters. If by alkaline chlorination, two-stage destruction is required.

(B) Hexavalent Chromium. Complete reduction to the trivalent form prior to mixing with non-hexavalent chromium bearing wastewaters.

(C) Metals. Pretreatment for chelating agents, neutralization, flocculation/coagulation, and clarification and/or filtration with sludge dewatering and/or removal as necessary.

(2) For process wastewater discharges from the categories listed in subdivision (s) (1), the following effluent limitations shall apply:

<u>Parameter</u>	<u>Allowable Effluent Concentrations mg/l (1)(4)</u>		
	<i>Average-Monthly</i>	<i>Maximum-Daily</i>	<i>MaximumInstantaneous (2)</i>
Aluminum (4)	2.0	4.0	6.0
Barium	2.0	4.0	6.0
Cadmium	0.1 (0.07)	0.5 (0.11)	0.75
Chromium, Hexavalent (3)	0.1	0.2	0.3
Chromium, Total	1.0	2.0	3.0
Copper	1.0	2.0	3.0
Cyanide, Amenable (3)	0.1	0.2	0.3
Cyanide, Total	0.65	1.2	—
Fluoride	20.0	30	45.0
Gold	0.1	0.5	0.75
Iron (4)	3.0	5.0	7.5
Lead	0.1	0.5	0.75
Nickel	1.0	2.0	3.0
Silver	0.1	0.5	0.75
Tin	2.0	4.0	6.0
Zinc	1.0	2.0	3.0
Total Suspended Solids (4)	20.0	30.0	45.0
Oil and Grease (4)	10.0	—	20.0

(1) All values are for new and existing discharges except for cadmium, in which case the numbers in parentheses are for new discharges only.

(2) As determined by a grab sample.

(3) All values are for the effluent from the treatment system prior to mixing with any

other wastewaters or discharges, except that the commissioner may apply the limitations for hexavalent chromium and/or amenable cyanide at the discharges from the chromium reduction and cyanide destruction systems, respectively, if in his or her opinion the flow from such system is too low in relation to the total flow from the treatment system to allow a meaningful or accurate measurement at the final discharge. Such alternate limitations shall not result in greater quantities of these substances being discharged than those which would be discharged if the limitations specified above were applied at the effluent from the treatment system.

(4) These limitations apply only to NPDES permits.

(3) The following minimum levels of treatment apply to the corresponding categories of discharge, subject to the approval of the commissioner. The commissioner may require additional treatment on a case-by-case basis.

(A) For minor photographic processing wastewaters, silver recovery.

(B) For groundwater contamination recovery system wastewaters from oil recovery operations, gravity separation and skimming of floatable materials in a tank with a retention time of at least six hours and, for groundwater contamination recovery system wastewaters from gasoline recovery operations, aeration or carbon adsorption. For receiving waters designated in the "Connecticut Water Quality Standards and Classifications" as a goal of AA or A, the total volatile hydrocarbon concentration of the discharge shall not be greater than ten parts per billion at any time.

(C) For vehicle service drains and vehicle washing facilities, gravity separation and skimming in a tank with a capacity of 1000 gallons or a retention time of at least twenty four hours at the average daily flow, whichever is greater.

(D) For minor tumbling and cleaning of parts wastewaters, gravity separation in a tank with a retention time of at least twenty four hours at average daily flow.

(E) For furniture refinishing rinsewaters, neutralization if acids are used in the process, and solids removal by gravity separation or filtration.

(F) For transfer station floor drains, gravity separation and skimming of floatable materials.

(G) For incinerator scrubber wastewaters, neutralization to a pH of between 6.0 and 10.0, and gravity settling.

(H) For carpet and upholstery cleaners, removal of lint through filtration.

(t) Discharges to POTWs—prohibitions

(1) For discharges to POTWs, no discharge may for any reason cause or threaten, either singly or in combination with other discharges:

(A) Interference with or adverse effect upon the operation of the POTW.

(B) Interference with or adverse effect upon the POTW's sludge handling, use or disposal, including but not limited to noncompliance with section 405 CWA, the Solid Waste Disposal Act, the Clean Air Act, the Toxic Substances Control Act, the Marine Protection Act or any local or state laws, regulations or ordinances.

(C) The POTW to exceed its influent design loading parameters.

(D) The POTW to violate its permit, including but not limited to exceeding its permit limits.

(E) A worsening of any condition which is causing the POTW to exceed its influent

design loading parameters or violate its permit.

(F) Pass through any substance into the receiving waters which then causes or threatens pollution.

(2) No discharge to a POTW may contain:

(A) Any substance which causes or threatens a fire or explosion hazard in the POTW.

(B) Any substance which causes or threatens corrosive structural damage to the POTW.

In no case shall a substance with a pH less than 5.0 be discharged unless the POTW is specifically designed to accommodate such a discharge.

(C) Solid or viscous wastes in amounts which cause or threaten obstruction to flow in the sewers.

(D) Heat in such amounts that the temperature of the POTW influent exceeds 104°F, unless the POTW is designed to accommodate such heat.

Appendix A

Primary Industry Categories

Adhesives and sealants²

Aluminum forming¹

Auto and other laundries²

Battery manufacturing¹

Coal mining¹

Coil coating¹

Copper forming¹

Electrical and electronic components¹

Electroplating¹

Explosives manufacturing³

Foundries¹

Gum and wood chemicals³

Inorganic chemicals manufacturing¹

Iron and steel manufacturing¹

Leather tanning and finishing¹

Mechanical products manufacturing¹

Nonferrous metals manufacturing¹

Ore mining¹

Organic chemicals manufacturing¹

Paint and ink formulation³

Pesticides¹

Petroleum refining¹

Pharmaceutical preparations¹

Photographic equipment and supplies³
 Plastics processing¹
 Plastic and synthetic materials manufacturing¹
 Porcelain enameling¹
 Printing and publishing³
 Pulp and paper mills¹
 Rubber processing³
 Soap and detergent manufacturing³
 Steam electric power plants¹
 Textile mills¹
 Timber products processing¹

¹Means wastewaters from this source, as defined pursuant to section 301 of the 1972 federal Water Pollution Control Act 33 U.S.C. 1251 et seq.

²Means wastewaters from this source, as defined pursuant to the 1972 Standard Industrial Classification Manual, Executive Office of the President, Office of Management and Budget.

³Defined in section 22a-430-6 (b) of the Regulations of Connecticut State Agencies.

Appendix B

Table I—Testing Requirements for Organic Toxic Substances by Primary Industry Category for Existing Discharges

<i>Industrial category</i>	<i>Volatile</i>	<i>GC/MS Fraction 4</i>		
		<i>Acid</i>	<i>abBase/n eutral</i>	<i>Pesticide</i>
Adhesives and Sealants ²	*	*	*	
Aluminum Forming ¹	*	*	*	
Auto and Other Laundries ²	*	*	*	*
Battery Manufacturing ¹				
Coal Mining ¹	*	*	*	*
Coil Coating ¹	*	*	*	
Copper Forming ¹	*	*	*	
Electric and Electronic Components ¹	*	*	*	*
Electroplating ¹	*	*	*	
Explosives Manufacturing ³		*	*	
Foundries ¹	*	*	*	
Gum and Wood Chemicals ³	*	*		

Regulations of Connecticut State Agencies

<i>Industrial category</i>	<i>Volatile</i>	<i>GC/MS Fraction 4</i>		
		<i>Acid</i>	<i>abBase/n</i> <i>eutral</i>	<i>Pesticide</i>
(except the following)				
Gum & Wood—	*	*	*	
Tall Oil Rosin			*	
Gum & Wood—	*	*		
Rosin based derivatives			*	
Inorganic Chemicals Manu- facturing ¹	*	*		
Iron and Steel Manufacturing ¹	*	*	*	
Leather Tanning and Finish- ing ¹	*	*	*	
Mechanical Products Manu- facturing ¹	*	*	*	
Nonferrous Metals Manufac- turing ¹	*	*	*	*
Ore Mining ¹ —base and pre- cious metals		*		
Organic Chemicals Manufac- turing ¹	*	*	*	*
Paint and Ink Formulation ³	*	*	*	
Pesticides ¹	*	*	*	*
Petroleum Refining ¹	*			
Pharmaceutical Preparations ¹	*	*	*	
Photographic Equipment and Supplies ³	*	*	*	
Plastic and Synthetic Materi- als			*	
Manufacturing ¹	*	*		*
Plastic Processing ¹	*			
Porcelain Enameling ¹			*	
Printing and Publishing ³	*	*		*
Pulp and Paper Mills ¹	*	*	*	*
Rubber Processing ³	*	*	*	
Soap and Detergent Manufac- turing ³	*	*	*	
Steam Electric Power Plants ¹	*	*		

Regulations of Connecticut State Agencies

<i>Industrial category</i>	<i>Volatile</i>	<i>GC/MS Fraction 4</i>		
		<i>Acid</i>	<i>abBase/n eutral</i>	<i>Pesticide</i>
Textile Mills ¹ —except Grieve mills	*	*	*	
Timber Products Processing ¹	*	*	*	*

¹ Means wastewaters from this source, as defined pursuant to section 301 of the 1972 federal Water Pollution Control Act 33 U.S.C. 1251 et seq.

² Means wastewaters from this source, as defined pursuant to the 1972 Standard Industrial Classification Manual, Executive Office of the President, Office of Management and Budget.

³ Defined in section 22a-430-6 (b) of the Regulations of Connecticut State Agencies.

⁴ The toxic pollutants in each fraction are listed in Table II.

* Testing required.

Table II—Organic Toxic Substances in Each of Four Fractions in Analysis by Gas Chromatography/Mass Spectroscopy (GS/MS)

Volatiles

- 1 acrolein
- 2 acrylonitrile
- 3 benzene
- 5 bromoform
- 6 carbon tetrachloride
- 7 chlorobenzene
- 8 chlorodibromomethane
- 9 chloroethane
- 10 2-chloroethylvinyl ether
- 11 chloroform
- 12 dichlorobromomethane
- 14 1, 1-dichloroethane
- 15 1, 2-dichloroethane
- 16 1, 1-dichloroethylene
- 17 1, 2-dichloropropane
- 18 1, 2-dichloropropylene
- 19 ethylbenzene
- 20 methylbromide
- 21 methylchloride

- 22 methylene chloride
- 23 1, 1, 2, 2-tetrachloroethane
- 24 tetrachloroethylene
- 25 toluene
- 26 1, 2-trans-dichloroethylene
- 27 1, 1, 1-trichloroethane
- 28 1, 1, 2-trichloroethane
- 29 trichloroethylene
- 31 vinyl chloride

Acid Compounds

- 1 2-chlorophenol
- 2 2, 4-dichlorophenol
- 3 2, 4-dimethylphenol
- 4 4, 6-dinitro-o-cresol
- 5 2, 4-dinitrophenol
- 6 2-nitrophenol
- 7 4-nitrophenol
- 8 p-chloro-m-cresol
- 9 pentachlorophenol
- 10 phenol
- 11 2, 4, 6-trichlorophenol

Base/Neutral

- 1 acenaphthene
- 2 acenaphthylene
- 3 anthracene
- 4 benzidine
- 5 benzo(a)anthracene
- 6 benzo(a)pyrene
- 7 3, 4-benzofluoranthene
- 8 benzo(ghi)perylene
- 9 benzo(k)fluoranthene
- 10 bis(2-chloroethoxy)methane
- 11 bis(2-chloroethyl)ether
- 12 bis(2-chloroisopropyl)ether
- 13 bis(2-ethylhexyl)phthalate
- 14 4-bromophenylphenyl ether

- 15 butylbenzyl phthalate
- 16 2-chloronaphthalene
- 17 4-chlorophenyl phenyl ether
- 18 chrysene
- 19 dibenzo(a,H)anthracene
- 20 1, 2-dichlorobenzene
- 21 1, 3-dichlorobenzene
- 22 1, 4-dichlorobenzene
- 23 3, 3-dichlorobenzidine
- 24 diethyl phthalate
- 25 dimethyl phthalate
- 26 di-n-butyl phthalate
- 27 2, 4-dinitrotoluene
- 28 2, 6-dinitrotoluene
- 29 di-n-octyl phthalate
- 30 1, 2-diphenylhydrazine (as azobenzene)
- 31 fluroranthene
- 32 fluorene
- 33 hexachlorobenzene
- 34 hexachlorobutadiene
- 35 hexachlorocyclopentadiene
- 36 hexachloroethane
- 37 indeno(1, 2, 3-cd)pyrene
- 38 isophorone
- 39 naphthalene
- 40 nitrobenzene
- 41 N-nitrosodimethylamine
- 42 N-nitrosodi-n-propylamine
- 43 N-nitrosodiphenylamine
- 44 phenanthrene
- 45 pyrene
- 46 1, 2, 4-trichlorobenzene

Pesticides

- 1 aldrin
- 2 alpha-BHC
- 3 beta-BHC

Regulations of Connecticut State Agencies

- 4 gamma-BHC
- 5 delta-BHC
- 6 chlordane
- 7 4, 4-DDT
- 8 4, 4-DDE
- 9 4, 4-DDD
- 10 dieldrin
- 11 alpha-endosulfan
- 12 beta-endosulfan
- 13 endosulfan sulfate
- 14 endrin
- 15 endrin aldehyde
- 16 heptachlor
- 17 heptachlor epoxide
- 18 PCB-1242
- 19 PCB-1254
- 20 PCB-1221
- 21 PCB-1232
- 22 PCB-1248
- 23 1260
- 24 PCB-1016
- 25 toxaphene

Appendix B

Table III—Other Toxic Substances: Metals, Cyanide, and Total Phenols

- 1 Antimony, Total
 - 2 Arsenic, Total
 - 3 Beryllium, Total
 - 4 Cadmium, Total
 - 5 Chromium, Total
 - 6 Chromium, Hexavalent
 - 7 Copper, Total
 - 8 Lead, Total
 - 9 Mercury, Total
 - 10 Nickel, Total
 - 11 Selenium, Total
-

-
-
- 12 Silver, Total
 - 13 Thallium, Total
 - 14 Zinc, Total
 - 15 Cyanide, Total
 - 16 Cyanide, Amenable
 - 17 Phenols, Total

Table IV—Other Substances

- 1 Bromide
- 2 Chlorine, Total Residual
- 3 Color
- 4 Fecal Coliform
- 5 Fluoride
- 6 Nitrate-Nitrite
- 7 Nitrogen, Total Organic
- 8 Radioactivity
- 9 Sulfate
- 10 Sulfide
- 11 Sulfite
- 12 Surfactants
- 13 Aluminum, Total
- 14 Barium, Total
- 15 Boron, Total
- 16 Cobalt, Total
- 17 Iron, Total
- 18 Magnesium, Total
- 19 Molybdenum, Total
- 20 Manganese, Total
- 21 Tin, Total
- 22 Titanium, Total

Table V—Other Toxic Substances and Hazardous Substances

Toxic Substances

- 1 Asbestos

Hazardous Substances

- 1 Acetaldehyde
-
-

- 2 Allyl alcohol
- 3 Allyl chloride
- 4 Amyl acetate
- 5 Aniline
- 6 Benzonitrile
- 7 Benzyl chloride
- 8 Benzyl chloride
- 9 Butyl acetate
- 10 Butylamine
- 11 Captan
- 12 Carbaryl
- 13 Carbofuran
- 14 Carbon disulfide
- 15 Chlorpyrifos
- 16 Coumaphos
- 17 Cresol
- 18 Crotonaldehyde
- 19 Cyclohexane
- 20 2, 4-Dichlorophenoxy (acetic acid)
- 21 Diazinon
- 22 Dicamba
- 23 Dichlobenil
- 24 Dichlone
- 25 2, 2-Dichloropropionic acid
- 26 Dichlorvos
- 27 Diethyl amine
- 28 Dimethyl amine
- 29 Dintrobenzene
- 30 Diquat
- 31 Disulfoton
- 32 Diuron
- 33 Epichlorohydrin
- 34 Ethanolamine
- 35 Ethion
- 36 Ethylene diamine
- 37 Ethylene dibromide

- 38 Formaldehyde
- 39 Furfural
- 40 Guthion
- 41 Isoprene
- 42 Isopropanolamine
- 43 Kelthane
- 44 Kepone
- 45 Malathion
- 46 Mercaptodimethur
- 47 Methoxychlor
- 48 Methyl mercaptan
- 49 Methyl methacrylate
- 50 Methyl parathion
- 51 Mevinphos
- 52 Mexacarbate
- 53 Monoethyl amine
- 54 Monomethyl amine
- 55 Naled
- 56 Napthenic acid
- 57 Nitrotoluene
- 58 Parathion
- 59 Phenolsulfanate
- 60 Phosgene
- 61 Propargite
- 62 Propylene oxide
- 63 Pyrethrins
- 64 Quinoline
- 65 Resorcinol
- 66 Strontium
- 67 Strychnine
- 68 Styrene
- 69 2, 4, 5-T(2, 4, 5-Trichlorophenoxy acetic acid)
- 70 TDE(Tetrachlorodiphenylethane)
- 71 2, 4, 5-TP
- 72 Trichlorofan
- 73 Triethylamine

- 74 Trimethylamine
- 75 Uranium
- 76 Vanadium
- 77 Vinyl acetate
- 78 Xylene
- 79 Xylenol
- 80 Zirconium

Appendix C
Conventional Pollutants

- 1. Biochemical Oxygen Demand (BOD) — Five Day
- 2. Total Suspended Solids (TSS) — Nonfilterable
- 3. pH
- 4. Oil and Grease
- 5. Fecal Coliform

Appendix D
Other Toxic Substances

- 1 Acenaphthene
- 2 Acrolein
- 3 Acrylonitrile
- 4 Aldrin/Dieldrin
- 5 Antimony and compounds*
- 6 Arsenic and compounds
- 7 Asbestos
- 8 Benzene
- 9 Benidine
- 10 Beryllium and compounds
- 11 Cadmium and compounds
- 12 Carbon tetrachloride
- 13 Chlordane (technical mixture and metabolites)
- 14 Chlorinated benzenes (other than dichlorobenzenes)
- 15 Chlorinated ethanes (including 1, 2-dichloroethane, 1, 1, 1-trichloroethane, and hexachloroethane)
- 16 Chloroalkyl ethers (chloromethyl, chloroethyl, and mixed ethers)
- 17 Chlorinated naphthalene

- 18 Chlorinated phenols (other than those listed elsewhere; includes trichlorophenols and chlorinated cresols)
- 19 Chloroform
- 20 2-chlorophenol
- 21 Chromium and compounds
- 22 Copper and compounds
- 23 Cyanides
- 24 DDT and metabolites
- 25 Dichlorobenzenes (1, 2-1, 3-, and 1, 4-dichlorobenzenes)
- 26 Dichlorobenzidine
- 27 Dichloroethylenes (1, 1-and 1, 2-dichloroethylene)
- 28 2, 4-dichlorophenol
- 29 Dichloropropane and dichloropropene
- 30 2, 4-dimethylphenol
- 31 Dinitrotoluene
- 32 Diphenylhydrazine
- 33 Endosulfan and metabolites
- 34 Endrin and metabolites
- 35 Ethylbenzene
- 36 Fluoranthene
- 37 Haloethers (other than those listed elsewhere; includes chlorophenylphenyl ethers, bromophenylphenyl ether, bis(dichloroisopropyl) ether, bis-(chloroethoxy) methane and polychlorinated diphenyl ethers)
- 38 Halomethanes (other than those listed elsewhere; includes methylene chloride, methylchloride, methylbromide, bromoform, dichlorobromomethane, trichlorofluoromethane, dichlorodifluoromethane)
- 39 Heptachlor and metabolites
- 40 Hexachlorobutadiene
- 41 Hexachlorocyclohexane (all isomers)
- 42 Hexachlorocyclopentadiene
- 43 Isophorone
- 44 Lead and compounds
- 45 Mercury and compounds
- 46 Naphthalene
- 47 Nickel and compounds
- 48 Nitrobenzene
- 49 Nitrophenols (Including 2, 4-dinitrophenol, dinitrocresol)

- 50 Nitrosamines
- 51 Pentachlorophenol
- 52 Phenol
- 53 Phthalate esters
- 54 Polychlorinated biphenyls (PCBs)
- 55 Polynuclear aromatic hydrocarbons (including benzantracenes, benzopyrenes, benzofluoranthene, chrysenes, dibenzanthracenes, and indenopyrenes)
- 56 Selenium and compounds
- 57 Silver and compounds
- 58 2, 3, 7, 8-Tetrachlorodibenzo-p-dioxin (TCDD)
- 59 Tetrachloroethylene
- 60 Thallium and compounds
- 61 Toluene
- 62 Toxaphene
- 63 Trichloroethylene
- 64 Vinyl chloride
- 65 Zinc and compounds

* The term “compounds” shall include organic and inorganic compounds.

(Effective July 13, 1993)